

# MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

Vol. XII. No. 21. WEEKLY. BALTIMORE, DECEMBER 31, 1887. \$3.00 A YEAR. SINGLE COPIES, 10 CENTS.

**Sole Manufacturers of EUREKA PACKING** **JAS. SMITH & CO.** **Dealers in MANUFACTURERS', MILL and ENGINEERS' SUPPLIES**  
 Steam, Hydraulic and Locomotive Packing. Works, 413 to 421 Race St., Cor. of Crown. Office & Store, 137 Market St., Philadelphia.  
 Send for Prices. CIRCULARS AND PRICE-LISTS MAILED UPON APPLICATION

**Milling Outfits for Flour and Meal.**  
 WE MAKE ROLLS AND PORTABLE MILLS COMPLETE.  
 Manufactory Established in 1851. Pamphlets with Prices Mailed Free.  
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**ELEVATORS** **MORSE ELEVATOR WORKS.** **MORSE, WILLIAMS & CO.** Successors to CLEM & MORSE  
 Manufacturers and Builders of HYDRAULIC STEAM, ELEVATORS, With most approved Safety Devices.  
 BELT and Hand-Power, PASSENGER and FREIGHT. Dumb-Waiters, Automatic Hatch-Doors, &c.  
 Office: 411 CHERRY STREET, PHILADELPHIA, PA.  
 Works: FRANKFORD AVE., WILDEY & SHACKANAXON STS.  
 Branch Office, 108 Liberty Street, NEW YORK.

**Report of the AQUEDUCT Commissioners.**  
 [NEW CROTON AQUEDUCT, NEW YORK.]  
 AN ELABORATE VOLUME, CONTAINING AUTHORITY TABLES BY THE CHIEF ENG., B. S. CHURCH. JUST ISSUED.  
**PLANT** (by actual count from Table 13.)  
 Number of Ingersoll Drills used..... 248  
 Number of Drills of all other kinds..... 103  
**PROGRESS** (by actual figures from Table 8.)  
 Average weekly progress in best 10 headings that used Ingersoll Drills exclusively (omitting all idle weeks)..... 38.73  
 Average weekly progress in best 10 headings that used other drills exclusively (omitting all idle weeks) 31.58  
 DIFFERENCE OF 20 PER CENT. IN FAVOR OF INGERSOLL DRILLS.

**ROOT'S NEW WATER TUBE STEAM BOILER,**  
 Safe, Economical, Durable.  
 Recently adopted by the BRUSH ELECTRIC LIGHT CO., at Louisville, the EDISON ELECTRIC LIGHT CO., Detroit, and the COLUMBUS EDISON ELECTRIC LIGHT CO., Columbus, Ohio.  
**Abendroth & Root Manufacturing Co.**  
 28 CLIFF STREET, - - - NEW YORK.

**Thomas K. Carey & Co.** LEATHER AND RUBBER BELTING, Cotton and Woolen Mill Supplies.  
 21 S. CHARLES STREET, BALTIMORE. LATHES, PLANERS, DRILLS, Engines, Shapers, Gear Cutters, &c.

**THE MEDART PATENT WROUGHT RIM PULLEY.**  
 OVER 300,000 NOW IN USE. THE LIGHTEST, STRONGEST, BEST BALANCED and CHEAPEST in the WORLD.  
 Shafting, Hangers, Couplings, &c.  
**MEDART PATENT PULLEY CO.,** 1906 TO 1914 N. MAIN STREET, ST. LOUIS, MO. Stores: 99 to 101 W. Second St., Cincinnati. 24 & 26 S. Canal St., Chicago.

**FRANK W. SWETT, MANUFACTURER OF BAND SAWS,** 69 SOUTH CANAL ST. CHICAGO, ILL. EVERY BLADE WARRANTED



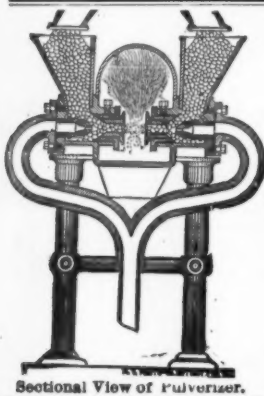
# MECKLENBURG IRON WORKS, Charlotte, N. C.

BUILDERS OF { *ENGINES and BOILERS, STAMP MILLS,*  
CRUSHERS, Circular Saw and Grist Mills, CORNISH PUMPS,

## MINING MACHINERY.

Cotton Presses, Water Wheels, Shafting and General Machinery.

JOHN WILKES, Manager.



### PNEUMATIC PULVERIZER.

The principle of pulverization consists in the employment of

#### TWO POWERFUL OPPOSING CURRENTS

of dry super-heated steam, so arranged that they continuously charge themselves with crushed or granulated material, and by the great force and velocity of the steam currents the minerals are dashed against each other with such power of concussion as to cause the hardest ores to be pulverized to any degree of fineness desired. The high temperature of the super-heated steam currents employed, through which every minute particle of ore must pass, causes them to become very hot and dry, which produces a beneficial effect upon sulphurets and ores containing rusty gold. The light weight and simplicity of construction of the Pulverizer, the extremely small and inexpensive wearing parts are the WONDER and SURPRISE of all who witness its operation. The Company are prepared to furnish complete plants for pulverizing

10 to 200 Tons Per Day,

including a Sectional Steam Boiler supplying all the power required.

### PNEUMATIC PULVERIZER COMPANY,

L. F. HOLMAN, Pres.

F. A. LUCKENBACH, Supt.

2 and 4 Stone Street, New York.

WRITE FOR PARTICULARS.

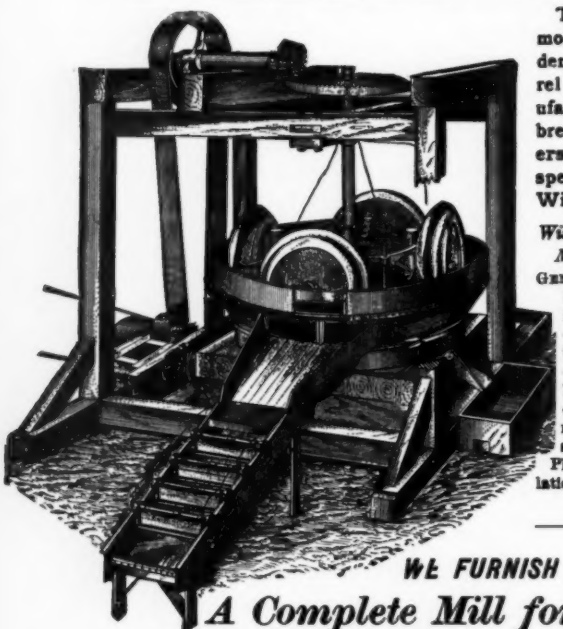


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Please accept congratulations for your success.  
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WE FURNISH

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DELIVERED ON BOARD CARS.

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FROM 1-4 to 15,000 lbs. WEIGHT.

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CRANK SHAFTS and GEARING specialties.

STEEL CASTINGS of every description.

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Works, Chester, Pa.

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STEAM ENGINES and BOILERS,

Lane's Patent Band Friction Hoisting Machinery,

FOR MINES, BLAST FURNACES, DOCKS, ETC.

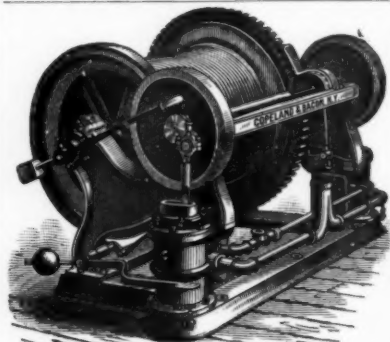
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Furnace Hoists  
Mine Hoists.

(With or Without Boilers.)

"Mining PLANTS," Concentrating  
Works and Dredging Machinery  
Furnished Complete.

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## Webster, Camp & Lane Machine Co.

BAND FRICTION

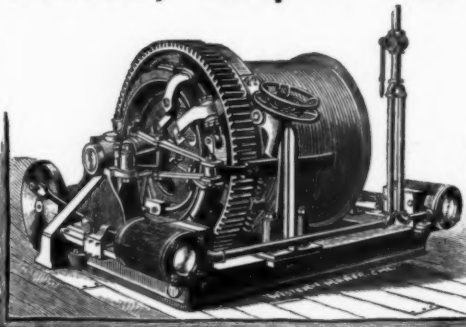
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Haulage Engines for

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Steam Engines, Boilers,  
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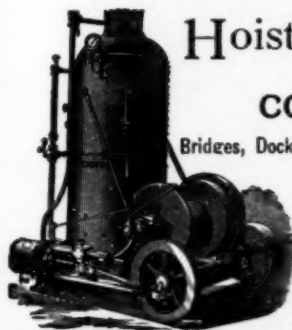
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300 STYLES AND SIZES.

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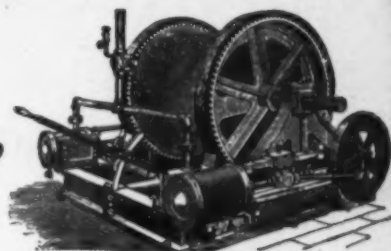
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FURNACE HOISTS,

Horizontal Engines

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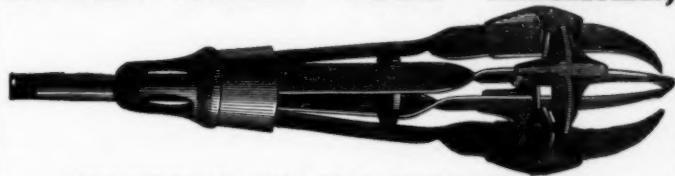
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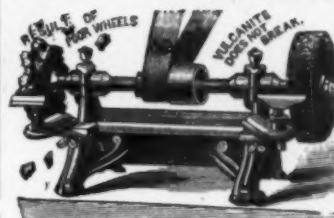
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**EMERY + WHEELS.**

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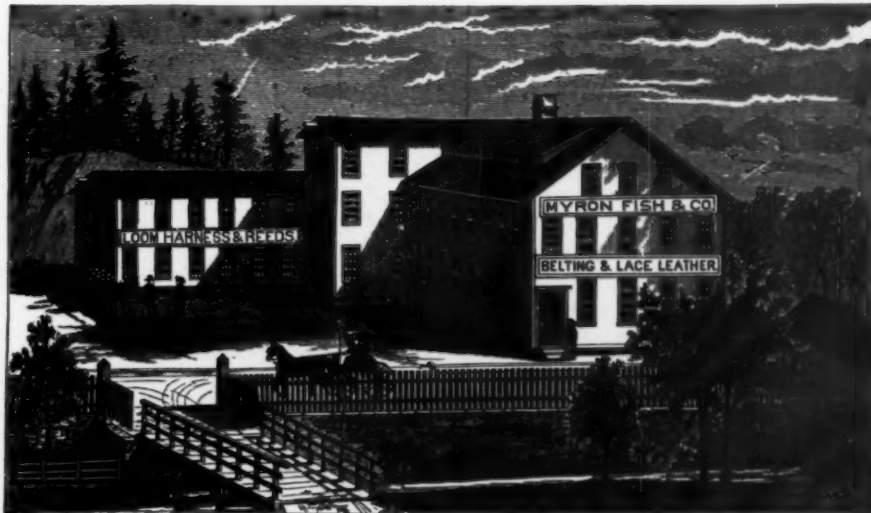
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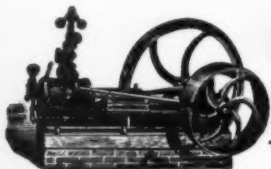


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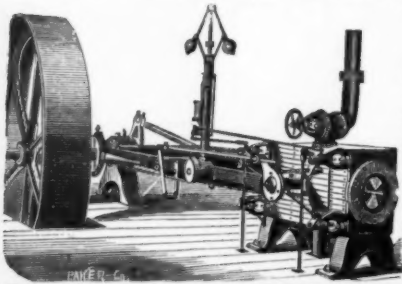


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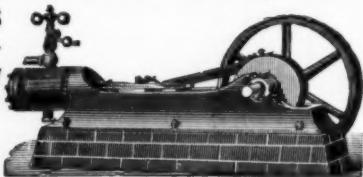
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MANUFACTURE  
**CORLISS Automatic Cut-Off ENGINES,**  
50 to 1,000 Horse-Power. Horizontal and Vertical, Condensing and Compound. Latest designs and most approved construction.  
**Slide Valve Stationary Engines,** all Sizes, Extra Heavy, with Girder or Box Frame.  
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**Saw Mills,** Extra Heavy, Standard and Pony, with self receding Blocks and late improvements.  
**42-Tubular, Locomotive and Flue Boilers.** Send for prices and description.  
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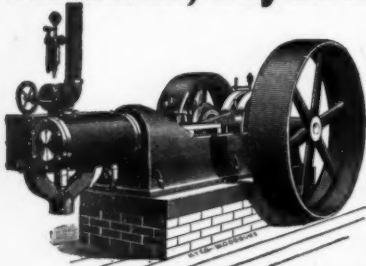
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Manufacturers of Portable and Stationary Engines and Boilers, including the well known Skinner Portable return flue boiler. Send for **ILLUSTRATED CATALOGUE AND PRICES.**



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### Automatic Cut-off Engines

5 to 300 Horse Power.

Economy in Fuel Consumption,  
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Great Durability and Simplicity.  
Perfect Workmanship and Design.  
Unrivalled in these qualities, our engines are suitable for all purposes, especially where high speed and difficult service are required, as in electric-light plants, rolling mills, etc. Send for Illustrated Catalogue.

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PIPES, STACKS, BEAMS, ROOF TRUSSES,  
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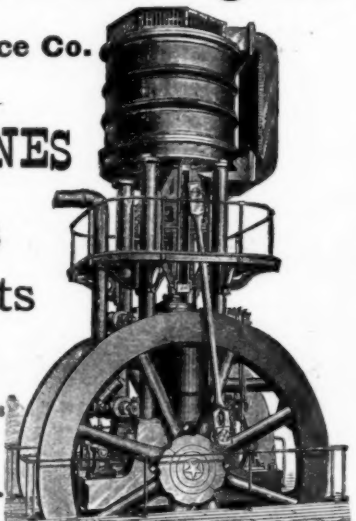
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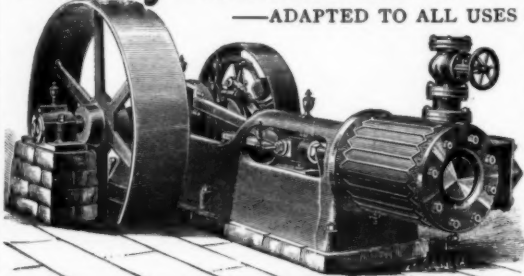
Superior Regulation and  
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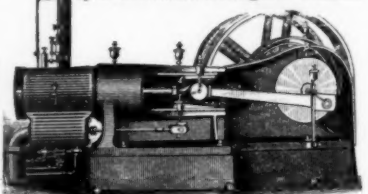
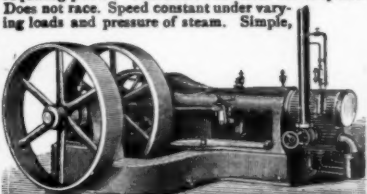
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## STEAM ENGINES

Adapted to Heavy, Continuous Work. Cost no more than ordinary Engines. For descriptive circulars, address

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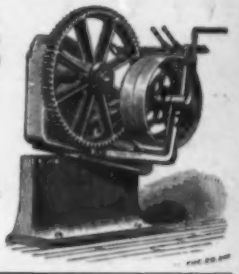
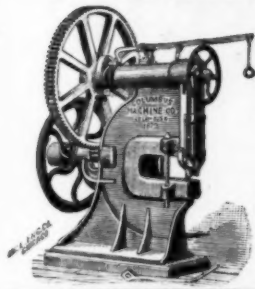


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Boilers, of all descriptions; Rolling Mills; Drop Presses; Shears for Rail, Bar and Plate  
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**Blowing Engines, and Blast Furnace Work in all its branches, a specialty.****Also, HEAVY CASTING AND MACHINERY WORK.****BLAST FURNACE ENGINES ON HAND.****AUTOMATIC CUT OFF ENGINES**

Embodying a new system of Absolute Regulation against a change of load and boiler pressure. The most perfect governing ever obtained. Send for circular L. We guarantee better regulation than is possible for any other engine to give.

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WITH STEEL BOILER, \$150.

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Automatic Boiler Feed. Automatic Pop Safety Valve. Steel Boiler. Cost of running guaranteed not to exceed three cents per hour. Nothing equal to it ever before offered for the price. Larger sizes equally low. Send for free descriptive circular.

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Steam Engines and Boilers, Boiler Feeders and Pumps, Shafting, Pulleys and Hangers, Mill Gearing and Supplies, Brass Goods, Fittings and Tools.

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Electric Light Engines, single and double; Brewers' and Coopers' Machinery, Laundry and Bottlers' Machinery. Patterns made to order. Belting, Hose, Packing, etc. Machinery repaired on short notice.

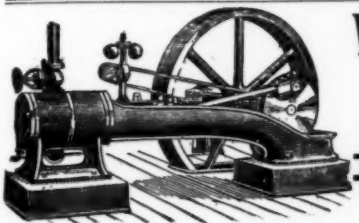
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Send for Descriptive Catalogue, Price and Pattern List.

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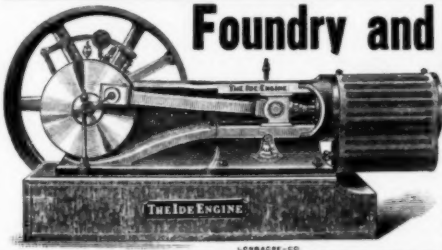
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Double Drum Derrick Engines. Single Drum Reversing Engines, suitable for Mines and Rapid Hoisting.

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Rotary Steam Fire Engine.

Hayes' Patent Extension Hook and  
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**Heaters and Fire Department Supplies.**

Send for Catalogues, etc.

**McLAUGHLIN'S IMPROVED ADJUSTABLE STEAM FLUE CLEANER.**

The only Adjustable Jet Flue Cleaner made. It fits any size tubes, from 1 to 30 inches. Patented December 14, 1886. Agents wanted everywhere. Send for Circular G. Address Geo. G. McLaughlin Mfg. Co., 137 Oliver Street, BOSTON.

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MASON REGULATOR Co., BOSTON. Gentlemen: In answer to your inquiry how the reducing valves work which we have put in, we would say they are doing all you claim for them, and our customers are well pleased with their working; and we think no steam plant can afford to be without them.

Very truly yours,

**BUEKEL & Co.****Shafting, Hangers.**

Castings of every Description made.

Stationary, Distillery Mill and Boiler Work.

**JNO. N. MARQUETTE, 118 W. Falls Ave., {Near Pratt Street} BALTIMORE, MD****THE IMPROVED FLORIDA STEAM HEATER**

The best and most complete House Heater in the world. Self-feeding, automatic, portable and saves all expense of brick-work. Most economical. Carries steam from 10 to 12 hours without attention. Compact. 14 sizes, from 4 to 6 feet high. Anti-clinker grate, easily shaken, no dust. Sales larger than the combined sales of all reputable Steam Heaters.

**3500 IN ACTUAL USE,**

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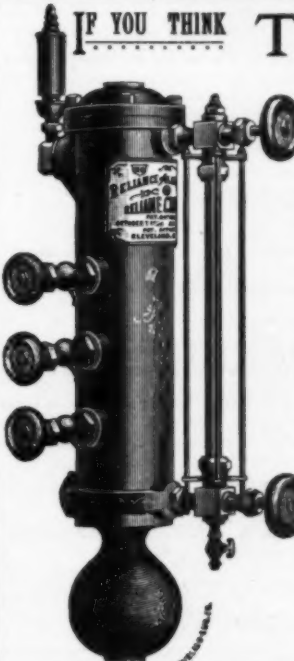
GENERAL AGENTS: CRANE BROS. MFG. CO., Chicago, Ill.

JAS. H. ROBERTSON &amp; CO., Baltimore, Md.

W. O. NELSON MFG. CO., St. Louis, Mo.

J. T. ASHER &amp; SON, Chicago, Ill.

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Promote carelessness, you are greatly mistaken. There is not a man living, be he skilled engineer or negro stoker, who will not, from the very nature of things, watch the water closer with than without them. They are as certain to not whistle if the water is right as they are to whistle if it is wrong, and those in attendance take good care to keep it right. Through extra watchfulness and these automatic alarms the best economical results are obtained, and the danger of explosions and damage from too much and too little water is reduced to a minimum. They are a needed safeguard, and you can ill afford to be without them. They are for sale and warranted by dealers and boiler makers generally. Send for illustrated price-list.

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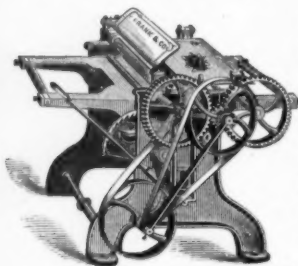


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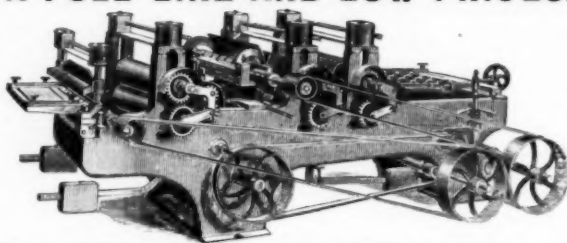


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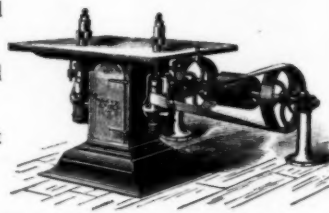


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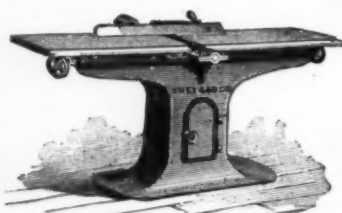


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Hand Planer and Jointer—8, 12, 16, 20 and 24 inches wide.

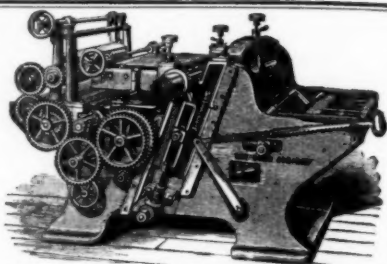
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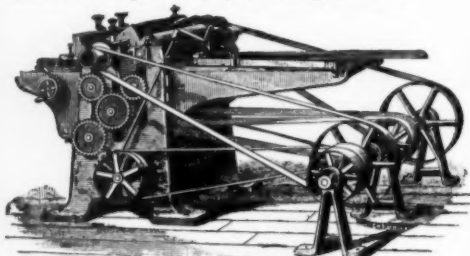
MANUFACTURERS OF

**Wood-Working Machinery**

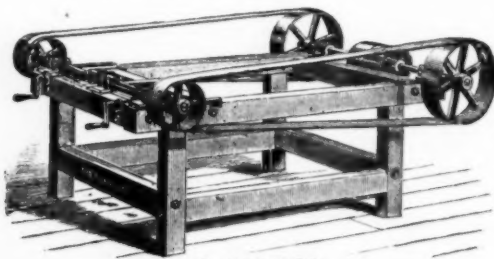
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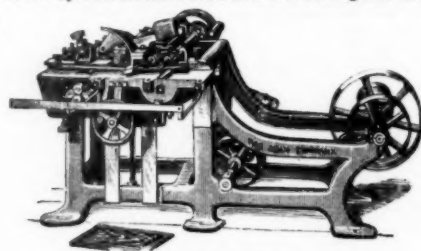
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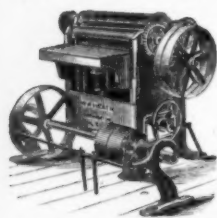
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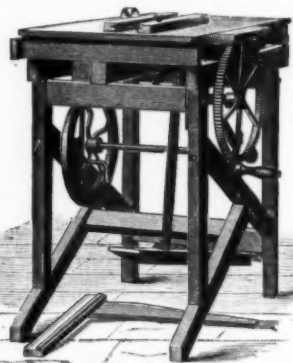
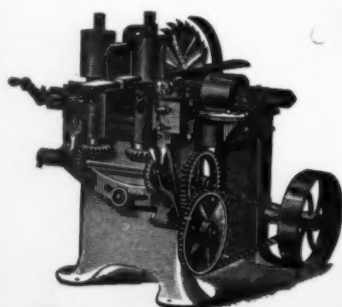
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SPECIAL DESIGNS IN

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**Circular Saws**

BENCH DRILLS,

Band Sawing Machines, Tool Grinders, etc.,  
FOR WORKSHOPS WITHOUT POWER.

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HEADING SAWING MACHINES,

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Lathes for turning handles for Brooms, Mops, Forks, Hoes, Axes, Picks, Hammers, Cant Hooks, and for Ball-Bats, Peavy-Stocks, Pike-Poles, Spokes, Etc.

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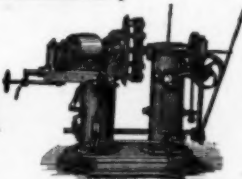
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CHAMFERING, HOWELING, AND CROZING MACHINE.



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Chamfering, Howeling and Crozing Machines, Stave Dressers, Stave Jointers, Hoop Drivers, Crozing Machines, Heading Jointers, Heading Dressers, Beer Stave Benders, Stave Cutters, Leveling and Trussing Machines, Cylinder Stave Saws, Heading Saws, etc.

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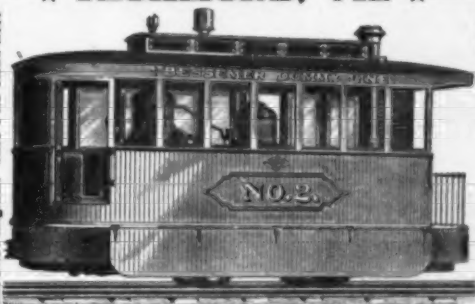
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Double Strength, with Improved Sockets.

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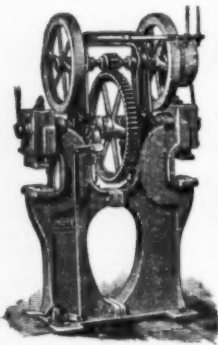
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The best appliance for pumping water of modern times.

**Progress Engine & Machine Works**

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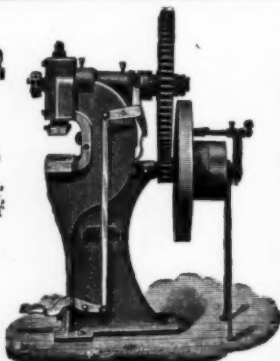
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**PUNCHES and SHEARS,  
Over 300 Sizes.**

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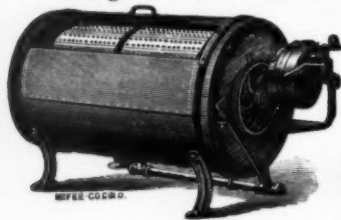


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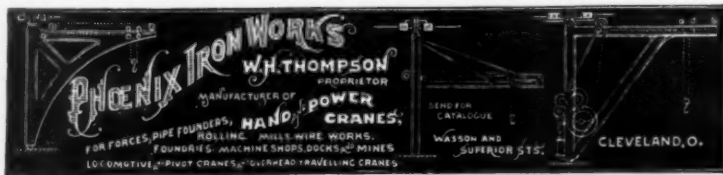
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**Barnes' Patent Engine  
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15 inch swing, 6 foot or 8 foot  
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These machines are made a  
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They have advantages not  
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this line.

It will pay parties desiring to purchase or know more about these machines to  
send for full description and prices to

**W. F. & JOHN BARNES' CO., No. 221 Ruby St., Rockford, Ill.**

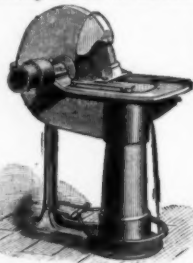
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Has no Pumps.

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No piping to supply it  
with water.

It has nothing to get  
out of order; is always  
ready for use.

It is as easily man-  
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and will give vastly  
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\$175.

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For Cutting Green Corn from the Cob or Canning.  
The Most Complete Line of Patented Machinery for Fruit, Vegetables  
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**HELVE HAMMER** FOR COAL AND COKE

WITH A MANUFACTURING EXPERIENCE OF  
OVER HALF A CENTURY WE RECOMMEND  
THESE MACHINES TO BE THE BEST  
SIMPLEST, MOST DURABLE AND COM-  
BINING ALL THE ESSENTIAL ELEMENTS.

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Also Castings and Pat-  
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*Beg to call the attention of Worsted Spinners and Manufacturers to their Improved Machinery for*

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Also Makers of PATENT MACARTHY COTTON GINS, Hand or Power, for long or short-stapled Cottons.

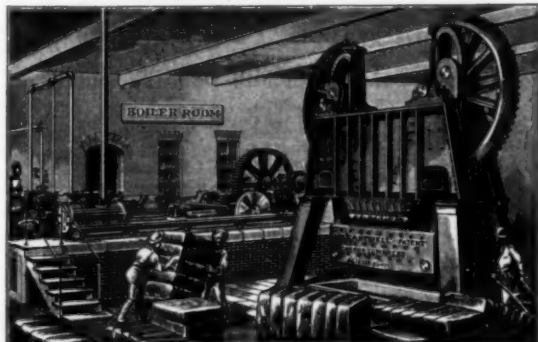
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U.S.A.  
Cheapest and Most  
ECONOMICAL.  
The Campbell Compress is the only machine that will run on small lots of cotton at a profit. Adapted to a small market. It does work equal to the best, and costs but one-half. Fully guaranteed. Correspondence solicited. Address  
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Patent Needle Pointed **CARD CLOTHING,**  
Hardened and Tempered Steel Wire

For COTTON and WOOLEN MILLS.

**T. K. EARLE MFG. CO. WORCESTER, MASS.**

SEND FOR SAMPLES.

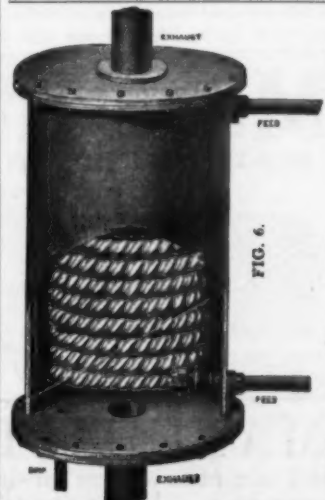


FIG. 6.

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**FEED-WATER HEATERS,**

Condensers, Filters, Expansion Joints,

Radiators and Water-Purifying Plants

For Preventing the Formation of Scale in Steam Boilers.

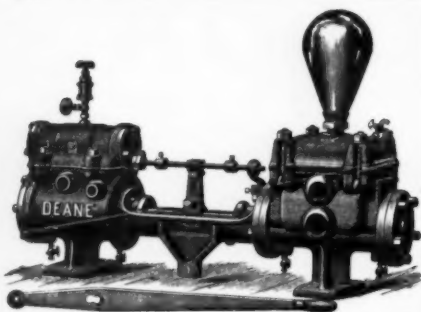
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Send for Illustrated Catalogue.

Buy "THE NEW SOUTH"





## THE DEANE STEAM PUMP CO.

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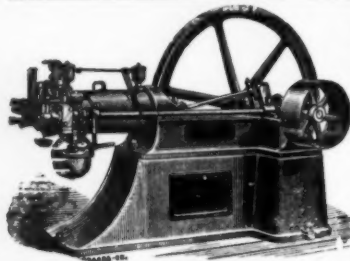
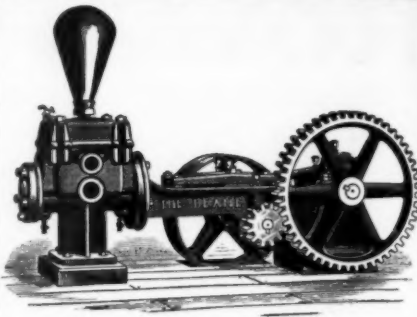
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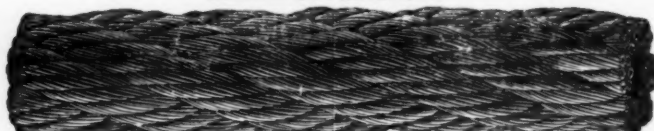
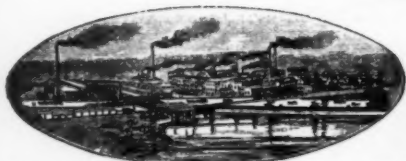
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## Manufacturers' Record.

PUBLISHED EVERY SATURDAY BY THE  
MANUFACTURERS' RECORD CO.

J. W. BIGSBY, *Presd.*  
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WM. H. EDMONDS, *Secy. & Manager.*

R. H. EDMONDS, EDITOR.

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BALTIMORE, DECEMBER 31, 1887.

THERE were some crafty Britons wise enough to see that it would not do to shout too loud or exult too greatly over the message of President Cleveland. They knew that Americans were readers of newspapers and that what was said on that side of the water would be repeated here instantaneously. They tried immediately to gag their exulting countrymen, but were a little too late. The mischief had been done already. One of the most prominent of the Tory nobility, Lord George Hamilton, was among the first to protest. He is quoted as saying: "At such a time it would be unwise for those who take a deep interest in the industrial problem to do or say anything which will put a fresh weapon in the hands of the high-tariff policy party of America." Right, "Me Lud!" You gave wise advice, but you were just a little too slow. Meanwhile the people of the United States have been warned and will see to it that their country is not made the dumping ground for your pauper-produced manufactures.

IN the Directory to the Iron and Steel Works of the United States, just issued by the American Iron and Steel Association, it is said that "thirty furnaces are now under construction, and of these 19 are being built in Alabama (17 to use coke and 2 to use charcoal), 3 in Tennessee, 2 in Maryland, 2 in Ohio, and one each in Pennsylvania, Virginia, Michigan and Wisconsin." Thus out of a total of 30 furnaces actually building at present, 25 are in the Southern States. In addition to these, a number of others are projected, some of which will doubtless be built in the near future.

THE South enters upon 1888 with brighter prospects than for many years. Nature has responded to the work of the farmers with bounteous crops; good prices have prevailed, and 1887 will long be noted as a debt-paying year. Southern farmers are, we believe, less in debt to-day than at any time since 1865.

If you are not already a subscriber to the MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year or six months for \$1.50.

## Free Trade Mendacity.

A cause that does not and cannot rest upon truth must necessarily be a false cause. Therein lies the weakness of free trade propagandism in America, for its teachings are founded upon and are sustained by falsehood. We do not mean directly or by implication to charge that all advocates of this un-American theory are liars; far from it. Many of them are gentlemen of unimpeachable integrity, who would scorn to tell or to connive at a lie. Such men are not deceivers, but have been deceived themselves, and give their approval to false theories of public policy with the most honest intentions. But, like poor Tray of the fable, they suffer in public esteem by being caught in bad company. For all such the MANUFACTURERS' RECORD has a profound sympathy. While condemning their errors, it has no words of censure, but many of commiseration. It regrets that men whose personal integrity is of the highest should be identified with, and thus give respectability to, a question of public policy that American interests demand should never be agitated, for that question, stripped of all disguises, is this: is a foreign policy adapted to the needs of the United States, or shall this country pursue one fitted to its own conditions, needs and destiny? So clearly do our British competitors understand this, that they have tried directly, and through their almost innumerable agents in this country, to hide the real issue involved under all kinds of specious subtleties; and so ingenious and persistent have they been that they have finally "deceived the very elect," (as see the recent message of the President to Congress.) Never could this have been done had the subject been as thoroughly understood by the American people as are the Monroe doctrine, the habeas corpus, and the sovereignty of the individual as the chief corner stone of a free republic. There is no question about the principles involved in those three; they are universally accepted by all American freemen. There ought to be the same unanimity on the question of protection to American industries, and there would be had not conflicting foreign interests, backed by enormous capital, been at work from the earliest days of our history until now to misinform the people, and to inculcate among them the pernicious theories of free trade. For three quarters of a century British capital has been freely expended to teach British ideas to American voters. The most crafty intellects British gold could command have been employed. Newspapers of influence have been subsidized, tracts have been circulated by tens of thousands, politicians have been suborned, and everything that ingenuity could devise has been done, without regard to cost, to prevent the people of this country from becoming independent in manufactures and the arts of Great Britain

and of Europe. Had these vigorous and long-continued efforts been confined to honest attacks upon the policy of protection there would be no cause for complaint. The foreign trader has the right to make markets for his wares wherever he can, and those in his pay in this country are welcome to advocate his interest in all legitimate ways, and by all honest arguments. But that would not do, and none know it so well as they. The truth is the one thing the British free trade advocate fears. Let the people of the United States see that, and all his hopes would vanish. He must resort to sophistry and lies, or the standard of protection would be advanced until American ports would practically be closed to most of his wares and merchandise. Several signal instances of this have lately appeared in that reputedly respectable, but (on this question) very tricky paper, the New York Times. That journal sent a staff correspondent to interview some of the principal manufacturers of the little but very busy State of Connecticut, in which are made everything, from shoe pegs, percussion caps and pins, up to engines, boilers and ponderous machinery for every kind of work. The interviewer understood his instructions, and obeyed them. He suppressed every expression in favor of protection, distorted statements made by its friends, and gave them a free trade slant, and so grossly misrepresented gentlemen that had courteously granted him interviews, that they were compelled to publicly disavow what he had put into their mouths. One would suppose that a paper of the pretensions of the New York Times would have promptly reprinted these protests, and have repudiated its correspondent. Not so. That would have destroyed its purpose, which was to give the free trade papers outside of New York arguments seemingly drawn from the experiences of prominent New England manufacturers of national reputation. So the lies remain uncontradicted by the paper that started them on their journey, and will doubtless be accepted as truths by tens of thousands of readers, because of its supposed respectability.

The foregoing is but one of many instances that might be adduced illustrative of free-trade mendacity. Last January the same newspaper sent a talented staff attaché on a trip through the South and published a series of his letters about Birmingham, Sheffield and other young manufacturing towns, which tended in every instance to convey the impression that the mighty industrial movement whose progress is the wonder of our age was an ephemera that would soon collapse like a bubble and vanish into thin air. The New York Herald, another free-trade journal, (it claims to be independent, but is really an organ of the great importing houses of the metropolis) published a few weeks since

two columns of misrepresentations of the New South, and particularly of Birmingham, that caused all who did not understand the underlying motive of that paper to wonder what it meant by such outrageous and false statements. The Times, the Herald and all journals of like ilk, in admitting such false statements to their columns, are simply obeying their free-trade instincts. If Birmingham, Anniston, Sheffield, Chattanooga and a score of other towns which, by their growth in manufactures and population, are illustrating the advantages of the protective policy, shall continue to flourish they will create in all the States in which they are located a protective sentiment so strong that the whole power of British influence and capital will be vainly employed to destroy it. It is, therefore, necessary that the development of the New South should be stopped, its furnace fires be extinguished and its general industrial development come to an immediate end. Hence the free trade mendacity of which we complain.

MR. S. B. LOWE, the Chattanooga correspondent of the Iron Age, writes as follows:

With the exception of the natural closing up of business accounts at the end of the year, business of all kinds keeps up remarkably well. It was expected by many that the numerous new enterprises that have been inaugurated during the year would slow down to some extent, but so far as can be observed they all appear to be moving along with apparent strength. A matter of much more than commercial interest develops itself more and more every day in the matter of Southern transportation. Never before in the history of Southern railroads has their capacity been so inadequate to meet the requirements of the country as at present. The single-track lines are blocked for want of track capacity, motive power and rolling stock, and it is very evident that more through lines are needed, as well as largely increased carrying capacity. In money matters it may be said that while money is very close, nearly all of the legitimate business of the country appears now to be taken care of.

This complaint of the inadequate supply of rolling stock, and of the inability of Southern railroads to handle the business offering, is very general. The South needs more roads, and the roads now in operation need more rolling stock very badly. For the next ten years the South will, we venture to say, be the center of railroad construction of this country.

COMMENCING with the new year the Enterprise, of Sheffield, Ala., will be published daily, thus giving that prosperous town a good home daily paper with Associated Press dispatches. This admirably illustrates the growth of Sheffield. Four years ago the location of that town was a cotton and corn field, while to-day its population is sufficient to justify the establishment of a daily paper. With the completion of Sheffield's five furnaces and other enterprises now under construction that town will increase even more rapidly in population than it has heretofore.



### What it Costs to Make Iron in Alabama.

The MANUFACTURERS' RECORD is always glad to have its statements of Southern advantages substantiated by the testimony of Northern experts, who can have no possible reason for presenting too strong a case for the South. No one can accuse the Iron Age of being so partial to Southern iron interests as to make a too favorable showing regarding the future of this industry. In fact, some of our Southern friends have often charged that paper with such ill-will to Southern iron interests as to cause it to misrepresent the possibilities of their section in this line. We believe that the Iron Age is too reputable a journal to intentionally misrepresent any section, and while we fully acquit it of any such motive, yet it is a well-known fact that it has not been a firm believer in the very low cost of iron making claimed by the Alabama people. On this point, however, there seems to be a change of opinion, due to the recent personal investigation by one of its editors of the iron industry in Alabama. It is rather surprising to find in the Age a statement that pig iron can be made in Alabama as low as \$10.50 a ton, "including fair allowances for interest on plant, a moderate royalty charge on ore and coal for exhaustion of lands, and a safe margin for ordinary repairs, replacement, taxes and cost of water." That is probably about as low as any one in Alabama has ever claimed. The testimony of such a standard authority as the Iron Age must naturally carry great weight. Discussing the question of the cost of iron making in Alabama in its last issue that paper says:

A few years since the cost was estimated above \$12 per ton. We have every reason to believe from data submitted that to-day the cost has been considerably lowered, and that, according to the circumstances favoring the one or the other producer, it is within the limit of \$10.50 and \$11.50, including fair allowances for interest on plant, a moderate royalty charge on ore and coal for exhaustion of lands and a safe margin for ordinary repairs, replacement, taxes and cost of water. Accepting the higher figure, and making allowances for freights, commissions, insurance, we find that the furnaces of the Birmingham district can lay down their iron for the average of the grades without suffering any pressure at \$15.75 to \$16 at New York, at \$16 to \$16.50 at New England points and at \$15.50 to \$16 at Cincinnati. Some of them can do it more cheaply; but at the figures named, with plants run fairly well, and producing about 2,000 to 2,200 tons a month, as the majority of them do, the makers in the district would meet the market without suffering. In other words, when standard irons are selling at tidewater at \$15.50, \$16.50 and \$17.50, respectively, for gray forge No. 2 and No. 1, Southern irons could still hold their own. This means that producers in the Lehigh Valley should be in a position to make their product at \$15 to \$15.50 to hold their own. Those acquainted with the district know that under ordinary conditions of ore and fuel supply a large percentage of the iron produced for the open market in the Lehigh Valley is made at less than that figure. On the other hand, nearly all the smaller companies, who depend upon the open market for their hematite and magnetic ores, and who are so located as to be at the mercy of the coal roads, cannot touch so low a cost. The smaller furnaces on the Hudson river are unquestionably better placed. The higher cost to a considerable number of the furnaces tributary to tidewater and New England markets is due to a variety of causes. One of them is the relatively high cost of fuel, and in the case

of some plants the policy of the railroad company upon which they happen to be dependent of loading the furnace owner down with all the freight charges his business is supposed capable of bearing. Another cause is the fact that local hematite ores are growing leaner and scarcer, and that growing depth is telling on the cost of mining in some of the magnetic ore districts, notably New Jersey. There, with a few exceptions, in which the plants take rank with the best in the country, the furnaces of the Lehigh Valley and other districts tributary to tidewater markets have remained far behind in the march of progress. Fuel consumption is high, product low in quantity, with all that that implies. And yet we know of small furnaces, using their own ores, whose monthly cost sheets at times run as low as \$9.50. How far modern plants located at points favorable to the purchase of cheap coal, in easy reach of an ore supply and in proximity to the largest markets, could reduce costs is a problem toward the solution of which we have no data beyond the indications furnished by the work of some of the latest plants. These, indeed, are encouraging to those who might desire to embark in the business. But dealing with the industry as it exists to-day a candid survey of the situation will lead to the admission that if it should come to a struggle between the furnaces in Eastern Pennsylvania, New Jersey and New York, which produce chiefly foundry brands for the open market, and the makers of the South, no inconsiderable number of the former would be unable to survive very long.

That in a struggle between the furnaces in Eastern Pennsylvania, New Jersey and New York, which produce chiefly foundry brands for the open market, and the iron makers of the South, no considerable number of these Northern furnaces would have to be abandoned, is a pretty strong statement that will hardly be relished by those who have imagined that the development of the South's iron interests was largely speculative.

### Our Coast Defences

The report of the Admiral of the Navy to Secretary Whitney is an admirable presentation of the defenceless condition of the country in case of war with a foreign power. It will be remembered that in the later months of his life the veteran Statesman, Samuel J. Tilden, wrote a memorial setting forth most urgently and clearly the unprotected condition of our commercial cities on the Eastern, Gulf and Western coasts, and pleading solemnly for immediate and liberal appropriations to put them in a state of security. The national administration has shamefully neglected this last impressive communication of the great statesman, but the chambers of commerce of our maritime cities have not forgotten it, nor has Admiral Porter. His report is a detailed exposition of our helpless condition. Not one of our seaports is safe from a maritime enemy. San Francisco, the port of the several Southern transcontinental roads and the gateway to the Indies, could be destroyed by an ordinary foe. There is not an effective gun on the shores of Oregon or Washington Territory, and the vast regions in and behind them "are ours only as long as we remain at peace, for in case of hostilities almost any power could hoist its flag on our Northwest coast under the protection of a few ships." "In time of war the ports of our Northwest coast would be so many harbors of refuge for an enemy in which to refit and procure supplies and then to operate against our territory." New York,

the metropolis of the Union, the city where an enemy would strike his first blow, is even more defenceless, for a hostile fleet could occupy the great bay below the Narrows and behind Sandy Hook without serious opposition and hermetically seal the harbor, or it could enter a "pocket," open to the sea, within a short distance of Coney Island, and from that point of vantage could throw 16-inch shells into New York, Brooklyn and Jersey City; could destroy the Brooklyn bridge and navy yard, and do whatever mischief it pleased without danger or molestation. An enemy's fleet need not enter Boston, for it could lie outside Deer Island in absolute safety and make its own conditions with the helpless city. And what is true of these applies to Charleston, Norfolk, Baltimore, Mobile and New Orleans. In case of foreign war all are at the mercy of an enemy, for modern artillery and armor have made old fortifications and guns useless for defence, and the latter good for nothing except the firing of salutes.

Admiral Porter does his duty in pointing out the dangers of the present and then tells what should be done to avert them. His three principal recommendations are the construction of swift cruisers to defend the nation's honor on all seas, the building of heavily armed and armored ships for coast defence, and the revival by judicious laws of the American merchant marine. The first will give us a force to protect American commerce on the high seas; the second will be a cordon of defence for our harbors; the third will be a great training school of seaman upon which the navy can draw in time of war, while its largest and fleetest ships can soon be put into fighting trim and become a formidable addition to the regular fleets. The reasons for these suggestions are stated with convincing clearness, and sailor-like precision, and their practicability is completely demonstrated. The comparisons instituted between the policy of England and other foreign nations and our own in reference to commercial marine interests, are not pleasing to our national pride or creditable to our wisdom or patriotism. "Ours," says the admiral, "is the only case of a nation in modern times with a great commercial marine which has been allowed to fall into a state of decay for no perceptible reason beyond the fact that it has not been fostered by government, and merchants, finding that their ships had no protection on the high seas, have withdrawn their capital from the ocean and have invested it ashore. \* \* \* Owing to differences of opinion between free traders and protectionists our ocean commercial marine has gone to the wall, for those disposed to embark in the carrying trade declined to take the risk when they saw the growth of free-trade ideas on this side of the Atlantic, thinking it useless to contend with the British on the ocean when aided by such a prevalence of British opinions in the United States. But people are beginning to give more attention to

this subject, which is not simply a matter of private thought, but one of national importance when we consider the immense assistance a great commercial marine would be to the United States in time of war, a misfortune to which we are at all times liable. If we have hitherto been fortunate in escaping foreign wars, it is principally because other nations have found their trade with us too lucrative to be interfered with."

In support of the proposition favored by the American Shipping and Industrial League, as embodied in the bill, which Senator Whitthorne introduced in Congress last session, Admiral Porter claims that the people of this country now pay to foreign ship owners the enormous sum of \$150,000,000 annually for carrying their goods, a large part of which might be retained in this country and add that much capital to its business facilities. As it is "we have actually given protection to foreign steamships at the expense of our own. \* \* \* This is free-trade with a vengeance, all on one side and for the benefit of other nations. We ship our goods in foreign bottoms and foreigners get the lion's share of the profits. \* \* \* It does not appear to have occurred to our people how this liberality to foreign nations will react against us some day. These lines of foreign steamships have all the ocean traffic in their hands. \* \* \* Here is a great fleet of steamships built with all the skill of British artisans that could in ten day's time be metamorphosed into vessels of war armed with heavy guns, ready to blockade our ports and sweep what commerce we have left from the sea, or to encounter our ships in battle." After giving the names and tonnage of quite a fleet of these steamships and urging the danger of longer delay in reestablishing American merchant shipping, Admiral Porter made the following extraordinary statements:

"A closer examination of this subject than has heretofore been given it by the majority of our statesmen will show the loss this country has sustained by a failure of Congress to act in the premises. In the last eight years no less than \$1,200,000,000 have been paid to foreign steamships, a sum almost equal to our national debt, and a burden that is only made tolerable, owing to the immense resources of our country. We should be still further depleted, but for the fact that we are sustained by the tariff on foreign merchandise and the protection of our manufactures, which prevents us from being undersold by foreigners, and enables us to give employment to our working people, so that with all our drawbacks we grow rich."

We commend this strong document to the attentive consideration of all interested in Southern development. The sturdy old admiral at the head of the United States Navy is as ready with his pen as he was with his guns in the day of battle. He is a thinker, a student and a man of affairs, and, while to his mind and because of his profession, the navy is his chief care, yet he has that breadth of mind that enables him to study his subject in all lights and to discern the bearings of his favorite upon all other American interests. The arguments he advances should have special weight with the South, for the great growth that marks this era makes necessary larger fields for the disposal of its products than this country alone can provide. But, given an American marine backed with a government support equal to that which other nations furnish their ships, and not only in South America, but in all countries we shall find markets as of old, and be competitors everywhere with the European nations for the trade of the world.



## THE SOUTH'S ONWARD MARCH.

## The Wonderful Record of 1887.

An Industrial Growth Never Surpassed in the World's History.

The Number of New Enterprises and the Capital Invested in 1887 More than Double the Figures of 1886.

The record of another twelve months has been summed up, and with 1887 ends the most remarkable year, in many respects, in the history of the South. During that year more was accomplished for the prosperity and progress of that section than ever before in the same length of time. It is not alone in the enormous industrial development and in the addition of millions of dollars to the manufacturing capital, and thousands of new enterprises, ranging from the small saw mill to the great iron and steel works, that 1887 will ever be memorable in the history of Southern industries; greater than these, so far as concerns the future progress of the South, is the interest that has been awakened among Northern and European capitalists in the vast mineral and timber wealth of that section, and their conversion to the truth that the South is destined to be the richest country in the world. Stretching from the southern boundary of Pennsylvania to the borders of Mexico is an immense territory, the area of which is more than 500,000,000 acres. Here are almost limitless forests of virgin timber of many varieties; boundless mineral wealth that has been barely touched as yet; magnificent farming lands, that under proper cultivation will yield big returns, and a climate that can nowhere be surpassed. In her own matchless resources, the South possesses the combined advantages of almost every other country. She has barely entered upon the threshold of the glorious future that awaits her. The next ten years will witness a development of her material interests that will astonish even the most ardent believers in the growth and prosperity of this section.

In truth the record of the past year reads more like a romance than the sober facts of actual business. From Maryland to Texas the progress of 1887 was well calculated to arrest the attention of the world. In all lines of industry the growth has been remarkable, and, as great as was the number of new enterprises in 1886, there is scarcely a single line of industry in which 1887 does not show nearly twice as many, and in some cases a still greater increase, while the capital invested likewise exhibits a similar gain. This growth is not, as many have supposed, built upon a speculative foundation; it is solid and substantial; it extends over almost the whole range of human industry, and is not confined to any one or two States, but embraces the entire fourteen Southern States. Out of these fourteen there are but four which do not report for 1887 more than double the amount of capital invested in new enterprises in 1886, and of these four, one shows an increase of about 90 per cent., one about 70 per cent. and one 40 per cent. Moreover, as this growth is not confined to any one or two States, neither is it confined to any one or two industries. It is true that the iron interests have attracted the greatest attention, but the rate of progress in other industries has been equally as marked as in iron, and besides this, instead of confining their attention to the production of pig iron, the iron men of the South are establishing machine shops and foundries, steel works, pipe works, stove foundries, car works and similar enterprises, that a home market

may be developed for all the pig iron that Southern furnaces produce. The growth in this direction is wonderful. The development of the South therefore is general, extending over the whole of it, and is safe and substantial, based upon a solid foundation, and covering the whole range of industry. These facts are admirably illustrated by a comparison of the number and kind of new enterprises organized or established during 1887 and 1886:

	1887.	1886.
Iron furnace companies.....	29	28
Machine shops and foundries.....	103	68
Agricultural implement factories.....	25	11
Flour mills.....	135	98
Cotton mills.....	77	9
Furniture factories.....	55	23
Gas works.....	24	35
Water works.....	42	88
Carriage and wagon factories.....	44	16
Electric light companies.....	83	34
Mining and quarrying enterprises.....	562	174
Lumber mills, including saw and planing mills, wash and door factories, stave factories, &c.....	726	448
Ice factories.....	96	50
Canning factories.....	82	13
Stove foundries.....	4	8
Brick works.....	169	53
Miscellaneous iron wks., roll'g mills, pipe wks., &c.....	71	21
Cotton compresses.....	36	13
Cotton seed oil mills.....	18	4
Natural gas companies.....	53	21
Miscellaneous enterprises not included in foregoing.....	939	418
Total.....	3,430	1,575

These figures show that while the number of furnace companies increased from 28 in 1886 to 29 in 1887, the number of machine shops and foundries increased from 68 to 103, and miscellaneous iron works, rolling mills, pipe works, &c., from 26 to 71, so that of enterprises to consume the pig iron the increase was much greater than of furnaces to produce it. Agricultural implement factories increased from 11 to 25, flour mills 92 to 135, furniture factories 23 to 55, gas works 24 to 35, water works 42 to 88, carriage and wagon factories 16 to 44, electric light works 34 to 83, mining and quarrying enterprises 174 to 562, cotton mills 9 to 77, wood-working concerns 448 to 726, ice factories 50 to 96, canning factories 13 to 82, brick works 53 to 169, cotton compresses 13 to 36, cotton-seed oil mills 4 to 18, natural gas companies 21 to 53, and miscellaneous enterprises 418 to 939. The total number in 1887 was 3,430, against 1,575 in 1886. Certainly this is a wonderful growth.

The early part of 1887 was marked by the organization of a large number of land improvement companies, and for a while there seemed to be danger of wild speculation that would have resulted in great harm to the whole South. Fortunately, however, this tendency was checked, though of course in individual cases there may have been some overtrading. That the rapid increase in new enterprises and the consequent increase in population would cause an advance in real estate was only natural, and this advance will undoubtedly continue with the growth of the South in population and prosperity. These land companies, where properly managed, have proved of almost incalculable advantage to the South. Their success being dependent upon the building up of manufactures, they have devoted their attention to this business rather than towards the encouragement of land speculation, and through liberal inducements in the way of free sites and financial aid, have caused the building of hundreds of important enterprises. This is the only way in which an aggregation of capital and real estate can be united in the direct work of securing new industries in any place, and it is this feature of the land companies that makes them of great value to a town. The power of these land companies for good is seen in Birmingham, in Anniston, in Decatur, in Sheffield, Tuscaloosa, Florence and other places.

The great land companies and industrial enterprises that were organized in the South during the latter part of 1886 and the early months of 1887 absorbed an immense amount of the surplus capital of that section, and as yet this capital is to a considerable extent locked up and not yielding any

returns. There are, for instance, about thirty furnaces under construction, requiring an investment of millions of dollars, while many new coal mines are being opened and new factories of all kinds established. When these enterprises get into operation, as the great majority of those organized in the winter of 1886-87 will do during the next six months, they will be, instead of locking up capital, daily increasing the wealth of the South, and thus helping to stimulate business and causing the building of still more new enterprises.

One of the most satisfactory features of the year's industrial growth has been the great attention given to the establishment of industries to manufacture goods for which the South has heretofore had to depend upon other sections. Chattanooga's steel rail mill, the only one in that section, is being admirably supplemented by kindred enterprises to supply other railroad material's. Alabama alone has secured five large car works during the year, Birmingham, Gadsden, Anniston and Decatur being the fortunate places. In Birmingham the Elyton Land Co. are building works to turn out 10 cars a day, while in Gadsden a large car factory, commenced some months, is nearly completed. As stated in recent issues the United States Rolling Stock Co., of New York, have decided to build new car works in Anniston to cost \$1,000,000 and to employ 1,000 mechanics, and to remove their large works now at Urbana, Ohio, which have a capacity of 15 cars a day, to Decatur. These are two of the most important enterprises undertaken in that section during 1887, and they are destined to have great influence in building up the whole South. They show that Northern capitalists after careful investigation are so fully convinced of the superiority of the South for car building that they are willing to show their faith by the investment of about \$2,000,000 in cash. The Anniston works will not simply make freight cars, but will turn out the most complete passenger and parlor cars, the entire work from making the axles and wheels to the upholstering being done in this establishment, while it is also stated that the building of locomotives will shortly be added. In addition to the removal of the works from Urbana, Decatur has also secured the location there of a large car building plant by the Louisville & Nashville Railroad, the buildings alone to cost about \$300,000.

As in the building of car works so in many other directions, there has been a rapid growth in establishing enterprises that will consume Southern materials—lumber, iron, etc.—and produce the finished goods formerly purchased elsewhere. One of these car works, that at Anniston, for instance, it is said, will pay out \$10,000 daily for materials and wages, which means over \$3,000,000 annually kept in the South, that without these works in existence would go North and West for cars for Southern roads. This will give some idea of what the establishment of five car factories in Alabama means, not only for that State, but for the entire South.

An event of great importance to the South, and especially to the cotton planting interests of that section, was the organization of the Southern Cotton Oil Co., with a capital stock of \$5,000,000. This company have already built eight large mills, running from 100 tons daily capacity to about 300 tons, and thus the monopoly of this business by the American Cotton Oil Trust, which promised to become as despotic in the cotton oil business as the Standard Oil Co. is in the petroleum trade, has been broken. The competition thus engendered has proven of great value by advancing the price of cotton-seed.

The activity in the building of cotton-seed oil mills has been more than equalled in the building of cotton mills. During the past year more new



cotton mill enterprises have been started in the South, we believe, than in any other year in the history of that industry. The mills in operation, except in rare cases, have yielded good returns, and in this line of industry that section has made a most eminently satisfactory progress. This is an industry in which the whole South can share, and its development is probably of equal if not greater importance than the development of the iron industry. Although the greatest cotton producer of the world, the South as yet manufactures but a small part of this staple, leaving to others this important industry. Very rapidly, however, are Southern cotton mills increasing in number, and the fact that during 1887 some 77 new mills were projected, many of which are now under construction while old mills are being enlarged and improved by the addition of the newest and best machinery, shows that this business is being pushed with much vigor. As in the building of new iron furnaces, so in cotton mills; those who have been longest in the business, and whose money has been made in this way, are the most active ones in furthering this growth. It has been noticeable for several years that Southern iron makers, those who have passed through bad times as well as good, are constantly enlarging their operations by the construction of new furnaces, and in cotton manufacturing, many of the most successful mill owners are now building entirely new mills, or else greatly increasing the capacity of their present mills. In South Carolina some half a dozen or more large mill companies are doubling their capacity by the erection of new mills to run from 10,000 to 20,000 spindles each; in North Carolina, the home of so many prosperous small mills, the activity in building new mills is unprecedented, and from the mountains to the seacoast there is great progress in this line. The reason for this growth is illustrated by the Mississippi Mills, of Wesson, now running 11,000 spindles and 250 looms on cotton and 250 looms and 13 sets cards on woolen goods, which have sold their entire production for 6 months ahead, and are compelled to add 5,000 or 6,000 spindles and a proportionate quantity of other machinery to keep up with their trade. Moving forward as the future greatest iron producer of the world, the South is also determined that she will spin and weave the cotton produced in her own fields, and thus in these two great industries lead all other countries.

Basing our calculations upon returns received directly by the MANUFACTURERS' RECORD, amply authenticated and verified, and in the case of incorporated companies, compared with the official reports of the State officers, we find that during 1887 the amount of capital, including capital stock of incorporated companies, represented by the new manufacturing and mining enterprises organized or chartered at the South, and in the enlargement of old plants, not including the land companies organized to develop manufactures, aggregates about \$256,298,000. It is of course true that with many of these companies the actual cash investment is not so large as the amount of their capital stock; but there are hundreds of small manufacturing enterprises, portable saw mills, small grist mills, gineries and similar small industries, costing from a few hundred to a thousand dollars, that are not included in this list. The aggregate cost of these would be very considerable and partly, though not wholly, offset the too great capitalization of some incorporated companies. Moreover, many of the large land companies, which are not included in this list, will really invest quite heavily in manufactures by aiding others to establish new industries. In addition to these, every manufacturing enterprise is constantly adding here and there a new piece of machinery, which in the aggregate is

very great; but we take no account of that, only including cases where a mill is greatly enlarged, remodeled, or other extensive improvements made.

Summing up the amount of capital and capital stock represented by our list of new enterprises and the enlargement of old plants for 1887, and comparing it with 1886, we have:

	1887.	1886.
Alabama.....	\$47,982,000	\$19,848,000
Arkansas.....	24,466,000	15,240,000
Florida.....	1,765,000	1,659,000
Georgia.....	15,361,000	3,599,000
Kentucky.....	40,053,000	28,404,000
Louisiana.....	8,218,000	2,400,000
Maryland.....	15,187,000	8,765,000
Mississippi.....	4,771,000	774,000
North Carolina.....	9,767,000	3,076,000
South Carolina.....	3,895,000	1,208,000
Tennessee.....	35,861,000	21,240,000
Texas.....	16,430,000	5,694,000
Virginia.....	23,255,000	8,514,000
West Virginia.....	8,266,000	8,365,000
Total.....	\$256,298,000	\$199,226,000

As compared with 1886, the list of new enterprises for this year, and the aggregate of capital and capital stock, show a most astonishing increase. The capital (and capital stock) for 1887 is a little less than double the amount for 1886, while the number of new enterprises is a little more than double.

In the following list we give the name, location and character of business of the new enterprises organized during the last three months of 1887, and existing establishments rebuilt (after being burned) or enlarged, having already given the list for the first nine months of the year in preceding quarterly reviews. It is well to impress this fact upon our readers that they may not make the mistake of some and suppose that the following is a list of new enterprises since January 1, 1887. It is simply a list of those reported during October, November and December:

## ALABAMA.

LOCATION.	NAME.	BUSINESS.
Anniston.....	United States Rolling Stock Co.	Car & Locomotive Works.
Anniston.....	Taylor & Son	Enlarge Fire Brick Works.
Anniston.....	Anniston Ornamental Slate & Roofing Co.	Slate Quarrying.
Anniston.....	Anniston Gas Light Co.	Gas Works.
Anniston.....	South Anniston Carriage & Wagon Factory.	Carriage & Wagon Fact'y.
Anniston.....	Isaac Linsky.	Clothing Factory.
Anniston.....	Barbour Machine Works.	Agricultural Imp., &c.
Anniston.....	Horton & Wane.	Saw Mill.
Anniston.....	Anniston Street Railway Co.	Electric Light Works.
Atalla.....	Atalla Iron & Steel Co.	Brick Yard.
Avondale.....	Geo. W. Hays.	Cracker Factory.
Bedsole.....	D. J. Bedsole.	Mill.
Bedsole, near.....	S. G. Roberts.	Saw Mill.
Bellefonte.....	Martin & Vaughan.	Saw Mill.
Bessemer.....	Howard & Co.	Brick Works.
Bessemer.....	Birmingham Cornice Co.	Cornice Factory.
Bessemer.....	W. E. Hartman.	Machine Shop.
Bessemer, near.....	B. F. Grace, Jr.	Ore Mining.
Birmingham.....	Union Gas, Oil & Asphalt Co.	Mining, &c.
Birmingham.....	Gate City Lumber & Imp. Co.	Lumber, &c.
Birmingham.....	Birm. Bridge & Bolt Co.	Enlarge Works.
Birmingham.....	Elyton Land Co.	Pin and Tack Factory.
Birmingham.....	L. Fisher & Co.	Saw Factory.
Birmingham.....	Lina Iron Works.	Foundry.
Birmingham.....	South'n Ry. Supply Mfg. Co.	Manufacturing, &c.
Birmingham.....	Birmingham Flooring Co.	Enlarge Mill.
Birmingham.....	Magic City Artificial Stone & Brick Co.	Artificial Stone.
Birmingham.....	Corona Coal & Coke Co.	Mining, &c.
Birmingham.....	Elyton Land Co.	Boiler & Sheet Iron Wks.
Birmingham.....	Elyton Land Co.	Car Works.
Birmingham.....	North Birmingham Lime & Brick Co.	Lime and Brick Works.
Birmingham.....	P. A. Dhonau & Co.	Matress Factory.
Birmingham.....	Abendroth & Fisher Mfg. Co.	Horseshoe Factory.
Birmingham.....	Fred. W. Watkins.	Foundry & Mach. Works.
Birmingham.....	Lomb & Hershey Co.	Mining.
Birmingham.....	Knebel Engine Co.	Wood-Work'g Factories.
Birmingham.....	Birm. & West Ala. Land & Mfg. Co.	Engine Works.
Birmingham, nr.....	Henry Ellen Coal Co.	Mining and Mfg.
Bolling, near.....	Flower & Peagler.	New Coal Mine.
Bolling Springs.....	W. L. Fluker.	Saw Mill.
Brewton.....	Peters Lumber Co.	Mach. Shop and Foundry.
Brundidge.....	Isaac Andrews.	Lumber Mill.
Carbon Hill, nr.....	Friel & Moore.	Brick Yard.
Carrollton.....	Wm. Kirkpatrick.	Coal Mining.
Chautauk, near.....	M. L. Davis.	Shingle Mill.
Clanton.....	McCrane & Johnson.	Saw Mill.
Clanton.....	Mix & Co.	Lumber Mill.
Columbiana.....	Frank Nelson, Jr.	Fertilizer Factory.
Coatopa.....	J. B. Patton & Bro.	Saw Mill.
Cordova.....	New Orleans & Ala. Coal Mining Co.	Mill and Gin.
Cordova.....	B. M. Long.	Coal Mining.
Decatur.....	U. S. Rolling Stock Co.	Coal Mining.
Decatur.....	Decatur Chain & Archi- tectural Iron Works.	Car Works.
Decatur.....	Decatur Car Wheel & Car Spring Co.	Chain and Architectural Iron Works.
Decatur.....	Spring Co.	Car Wheel and Car Spring Factory.
Decatur.....	Southern Horse Nail Co.	Horseshoe Nail Factory.
Decatur.....	Decatur Brick Co.	Additional Machinery.
Decatur.....	Decatur Pressed, Stock & Common Brick Co.	Brick Works.
Decatur.....	Decatur Cornice & Roof Co.	Cornice Works.
Decatur.....	W. W. Fulghum & Son.	Grain Mill.
Decatur.....	G. F. Buchelt.	Bottling Works.
Demopolis.....	Bryant Whitfield.	Ginney.
Ernest.....	Buck & Preston.	Saw Mill.
Eufaula.....	E. B. Young.	Broom Factory.
Eufaula.....	Henry W. Brodax.	Gin.
Florence.....	North Alabama Foundry & Land Co.	3 Furnaces or Rolling Mill, &c.
Florence.....	Revel Bros.	Ice Factory.
Florence.....	J. W. Schwartz.	Ship Yard.
Florence.....	Russell Handle Factory Co.	Spoke & Handle Fac., &c.

LOCATION.	NAME.	BUSINESS.
Florence.....	Bigelow & Colclazer.	Furniture Factory.
Florence.....	J. C. Thullen.	Boiler Works.
Florence.....	Amer. Refrig. & Com. Co.	Ice Factory.
Fort Payne.....	Fr. Payne Mfg. & Lum. Co.	Saw Mill.
Gadsden.....	Gadsden Metallic Paint Co.	Barrel Factory.
Gadsden.....	R. Y. Brandon.	Broom & Handle Factory.
Gate City.....	A. C. & H. H. Evans.	Planing Mill.
Greensboro.....	Flowers & Peagler.	Grist and Planing Mill.
Greenville.....	J. L. Kleibacker.	Saw Mill.
Hanceville.....	Eureka Co.	Chair Factory.
Helena.....	E. A. Barbee.	Coke Ovens.
Holmes Gap.....	Williams & Andrews.	Saw and Grist Mill.
Huntsville.....	N. M. Johnson.	Mach. Shop & Grist Mill.
Huntsville.....	W. L. Cresson and others.	Corn Mill.
Huntsville.....	W. J. Aderholt.	Furnace.
Irontdale.....	Irontdale Co.	Iron Works.
Jacksonville.....	W. J. Aderholt.	Mill and Gin.
Leeds.....	Holland & Co.	Saw Mill.
Lively.....	Louis H. McDurdy.	Ginney.
Marion.....	N. J. Gulley.	Saw and Grist Mill.
Marion.....	Waggoner & Wallace.	Carriage Factory.
McCalla.....	Hahn & Pidal.	Saw and Grist Mill.
Mobile.....	James McArthur.	Cigar Factory.
Mobile.....	F. Frohlichstein.	Box Factory.
Mobile.....	Thos. Carr.	Cigar Factory.
Mobile.....	Mobile Box Manufacturing Co.	Cracker & Candy Factory.
Mobile.....	Amer. Imp. Anti-Frict'n Co.	Box Factory.
Mobile, near.....	F. R. Jones and others.	New Works.
Montgomery.....	Montgomery El. Lt. & P'r Co.	Cotton Mill.
Montgomery.....	Mont. Stone & Building Co.	Enlarge Plant.
Montgomery.....	Capital City Brick & Tile Co.	Artificial Stone Factory.
Montgomery.....	Southern Cotton Oil Co.	Brick and Tile Works.
Northport.....	W. R. Hughes.	Double M. L.
Northport, near.....	Gaines & Baker.	Saw Mill.
Oak Level.....	Howell & Rodgers.	Lumber Mill.
Opelika.....	James L. Hardin.	Jug Factory.
Opelika.....	J. R. & C. I. Smith.	Saw Mill.
Rock Mills.....	Rosedale Mfg. Co.	Quarrying.
Round Mount, nr.....	Round Mt. Coal & Iron Co.	Ore Mining.
Selma.....	Acker & Simmons.	Enlarge Cotton Mill.
Selma.....	Pitts, Gay & Moffett.	Repaired Furnace.
Sheffield.....	J. Sheffield & Tusculum.	Double Broom Factory.
Sheffield.....	Water Co.	Wagon & Carriage Fact'y.
Sheffield.....	T. H. Grace.	Water Works.
Sheffield.....	Coleman Cotton Cleaner & Gin Co.	Flour and Grist Mill.
Sheffield.....	Sheffield Sandst' Quar. Co.	Cotton Gin Factory.
Sheffield.....	Sheffield Marble & Phos. Co.	Quarrying.
Sheffield.....	Adams, Manager.	Stove Works.
Sheffield.....	N. H. Cheatham.	Saw and Grist Mill.
Shelby Co. Wks.....	Shelby Iron Co.	Improved Furnace.
Sherman.....	Mangum.	Grist Mill.
St. Elmo.....	A. Bouchard.	Paint Factory.
Sylacauga, nr.....	Samples Lumber Co.	Saw Mill.
Sylacauga.....	R. M. Fleet.	Quarrying.
Talladega.....	Talladega Brick & Tile Co.	Brick and Tile Works.
Talladega, near.....	J. M. Sullivan and others.	Gold Mining.
Talladega.....	Talladega Iron Co.	Iron.
Talladega.....	R. A. Mosely, Jr. & others.	Pottery Works.
Talladega.....	Pittner & Grant.	Cigar Factory.
Talladega.....	L. J. Ham.	Carriage Factory.
Taylorville.....	Willingham & Hinton.	Mill.
Thompson.....	C. W. Fenn.	Spoke and Handle Fact'y.
Trussville.....	Hickman & Hewitt.	Brick Works.
Trussville.....	Birm. Furn. & Mfg. Co.	Coke Ovens.
Tuskaloosa.....	Jeter & Boardman Water & Gas Association.	Water Works.
Tuskaloosa.....	Tuskaloosa Lumber Co.	Lumber.
Union Springs.....	H. R. Dudley.	Spoke & Handle Factory.
Walker County.....	Bankhead, Pollock & Co.	Coal Mining.
Walker County.....	Marion Land & Coal Co.	Coal Mining.
Walker County.....	Gulf Coal & Coke Co.	Coke Ovens.
Waterloo.....	Waterloo Land, Mining & Mfg. Co.	Manufacturing, &c.
Warrior Stat'n.....	Hoene Cent. Coal & Iron Co.	Mining, &c.
Whitaker & Ohio R. R.....	Whitaker & Ohio R. R.	Wood-Working Factory.
Woodstock.....	Hayes Bros.	Mining.

## ARKANSAS.

Antimony City.....	U. S. Antimony Mining Co.	Mining.
Antimony City.....	Antimony Mfg. Co.	Chemicals, &c.
Arkadelphia.....	Arkadelphia Lumber Co.	Planing Mill.
Arkins.....	Weaver & Son.	Carriage Factory.
Atkins.....	T. Embury.	Grist Mill.
Augusta.....	W. J. Patient.	Shingle Mill.
Baxter County.....	A. C. Cornell.	Saw Mill.
Bentonville.....	Arkansas Tobacco Co.	Cigar & Tobacco Factory.
Bear.....	Gold Dust Min. & Mil. Co.	Mining.
Bear.....	Col. Moffett.	Smelter.
Bear.....	R. R. Waitz.	Smelting Works.
Bingen.....	Smith & Lovell.	Saw and Grist Mill.
Black Rock.....	L. Maxfield.	Machine Shop.
Cabot.....	Neely & Neely.	Grist Mill.
Camden.....	Neely & Neely.	Saw Mills.
Conway.....	J. S. Lander.	Chair Factory.
Corning.....	E. D. Estes.	Saw Mill.
El Dorado.....	John C. Wright.	Gin.
Eureka Springs.....	Knights of Labor.	Corn Mill.
Eureka Springs.....	Brown & Webb.	Flour Mill.
Gayettesville.....	T. A. Roach.	Broom Factory.
Forest City.....	C. H. Havens.	Saw Mill.
Fort Smith.....	Ark. Nat. Gas & Oil Co.	Natural Gas.
Fort Smith.....	Fort Smith Natural Gas & Power Co.	Coal Mining.
Goldman.....	Highland Lumber Co.	Saw Mill.
Greenfield.....	Gault Bros.	Saw Mill.
Jefferson.....	G. C. Richards.	Saw Mill.
Jonestown.....	Shippey and others.	Mining Machinery.
Little Rock.....	Rock City Mining Co.	Mining.
Little Rock.....	W. C. Loomis.	Saw Mill.
Little Rock.....	City Electric Street Ry. Co.	Electric Plant.
Little Rock.....	D. H. Thomas.	New Cotton Press Fact'y.
Marianna.....	Water Works.	Water Works.
Montgomery Co.....	Spanish Dig Mining Co.	Mining.
Mountain Home.....	Baxter County Mining Assn.	Mining.
Mountain View.....	S. T. Brewer & Geo. McCray.	Mining.
Pine Bluff.....	W. Y. Wark and others.	Electric Light Works.
Pine Bluff.....	Pine Bluff Pres'd Brick Co.	Brick Works.
Pine Bluff.....	Gallagher & Woodfin.	Cigar Factory.
Poinsett Co.....	Kennedy & Molock.	Stave and Spoke Factory.
Rogers.....	Rogers Pack'g & Can'g Co.	Canning Factory.
Siloam Springs.....	Charles E. Noyes.	Distillery.
Silver City.....	Minnesota Mining Co.	Mining.
Sycamore Spgs.....	W. L. Whitaker and others.	Saw Mill.
Texasarkana.....	W. L. Whitaker and others.	Gas Works, &c.
Texasarkana.....	Arkansas Ice Co.	Increase Capital.
Tillar.....	T. O. Wilson & Co.	Manufacturing.
Thornton.....	Buchannon & Co.	Lumber Mill.
Walnut Ridge.....	W. M. Ponder.	Saw Mill.

## FLORIDA.

Apalachicola.....	D. M. Munro & Co.	Planing Mill.
Aucilla.....	G. C. Bishop.	Saw Mill.
Bloomfield.....	John F. Orneway.	Cigar Factory.
Blue Pond.....	Chandley.	Saw Mill.
Bluff Springs.....	Pritchett Gin Co.	Gin.
Bronson.....	Dunham & Sons and others.	Saw Mill.
Chipley.....	A. E. Chandler & Co.	Planing Mill.
Cleveland.....	Joseph Williams.	Ship Yard.
Daytona.....	Henry Pflanz.	Saw Mill.
Daytona.....	Harwood Lumber & Imp. Co.	Lumber.
DeFuniak Spgs.....	DeFuniak Lumber Co.	Saw and Planing Mill.
DeFuniak Spgs.....	DeFuniak Wool & Cotton Manfg. Co.	Cotton Mill.
DeLand.....	DeLand El. Lt. & Pow. Co.	Electric Light Works.
DeLeon Spgs.....	DeLeon Springs Brick & Tile Co.	Brick and Tile Works.
Dunnellton.....	H. G. Garrett.	Saw Mill.
Gainesville.....	O'ville Gas & Elec. Lt. Wks. Gas Works.	Manufacturing.
Gainesville.....	H. F. Dutton & Co.	Moss Factory.



LOCATION.	NAME.	BUSINESS.
Gainesville.....	Jose Garzon.....	Cigar Factory.
Glen St. Mary.....	W. L. Horne.....	Saw Mill.
Green Cove Spgs.....	Green Cove Brush El. Lt. Co.	Electric Light Works.
Interlachen.....	L. S. Hall.....	Saw Mill.
Glen Ethel.....	C. J. Graham.....	Fibre Factory.
Island Lake, nr. Ainsley & Thompson.....		Box Factory.
Jacksonville.....	N. B. Broward.....	Saw and Grist Mill.
Jacksonville.....	Merrill-Stevens Engine Co.	Bl.iler Works, &c.
Key West.....	J. Leon.....	Cigar Factory.
Key West.....	G. W. Nichols.....	Cigar Factory.
Kissimmee.....	Kissimmee Ice.....	Ice Factory.
Lake Butler.....	York & Craig.....	Brick and Tile Works.
Lake City.....	Lake City Water & Lt. Co.	Water Wks. & El. Lt. Wks.
Lake City.....	Florida Tobacco Producing & Trading Co.....	Tobacco Mfg., &c.
Lakeview.....	Allport.....	Grist Mill & Furn. Fact'y.
Lakeview.....	D. W. Brigham.....	Fertilizer Factory.
Macclenny.....	Baker Co. Ref. & Bkg. Co.	Ice Factory.
Macclenny.....	F. A. Miller.....	Cigar Factory.
Macclenny.....	Macclenny & Barber.....	Ginney and Compress.
Madeira.....	J. W. Williams.....	Grist Mill.
Millville.....	Geo. K. Robinson & Co.	Enlarged Saw Mill.
Millville.....	S. G. M. Bates and others.....	Saw Mill.
Mincola.....	W. M. French.....	Artificial Stone Factory.
Ocala.....	Donald McVey.....	Marble Yard.
Ocala.....	Ocala Lime Co.....	Enlarged Works.
Orange Park.....	H. H. Horton.....	Mill.
Orlando.....	Macy.....	Saw Mill.
Orlando.....	B. F. Kuhl.....	Candy Factory.
Orlando.....	P. G. Jennings.....	Saw Mill.
Osteen.....	James R. Houston.....	Saw Mill.
Pensacola.....	Collins Bros.....	Boot and Shoe Factory.
Pensacola.....	Pensacola Fertilizing Co.	Bone Mill.
Pine Harren.....	McMillan Mill Co.	Lumber Mill.
Plant City.....	Head & Co.....	Saw Mill.
Port Orange.....	Charles Vogt.....	Cigar Factory.
Quincy.....	John H. Wiese.....	Cigar Factory.
Sanford.....	Gate City Wagon Works.....	Wagon Works.
Sorrento.....	Hill & Layman.....	Brick and Tile Works.
Starke.....	Irving Johns.....	Grist Mill.
Starke.....	L. C. Hull.....	Brick Works.
St. Augustine.....	St Augustine Imp. Co.....	Wood-Working Factory.
Sumterville.....	Clark & Brown.....	Saw Mill.
Tmatilla.....	Taylor.....	Saw Mill.
Tarce.....	A. R. Gano.....	Saw Mill.
Welaka.....	Julius Crebits.....	Mattress Factory.
Windsor.....	Griffin & Kinder.....	Tub and Bucket Factory.
Woodbridge.....	Woodbridge Mfg. & Im. Co.	Wine Factory, &c.

## GEORGIA.

Adairville.....	Oglesby & Bro.	Saw and Planing Mill.
Albany.....	J. G. Wells & Geise	Saw Mill.
Americus.....	H. C. Bagley	Grist Mill.
Athens.....	J. S. Fowler	Distillery.
Athens.....	Pioneer Manfg. Co.	Paper Mill.
Athens, near.....	R. K. Reaves	Distillery.
Atlanta.....	Gate City Coffin Co.	Coffin Factory.
Atlanta.....	S. J. Morrow	Manufacturing.
Atlanta.....	Gate City Art Stained	Stained Glass Works.
Atlanta.....	Glass Co.	Glass Works.
Atlanta.....	Nolta Cons. Marble, Iron	Mining, &c.
Atlanta.....	& Talco Co.	
Atlanta.....	Hodge & Evans	Printer's Ink Factory.
Atlanta.....	Atlanta Car Co.	Car Works.
Atlanta.....	Cooper Piano Co.	Piano Factory.
Atlanta.....	Atlanta Gua o Co.	New Works.
Atlanta.....	Ga. Technological School	Machine Shop.
Atlanta.....	Atlanta Brewery	Ice Factory.
Atlanta.....	Atlanta Furn. Turf Mfg. Co.	Furniture Factory.
Atlanta.....	Atlanta Brick Co.	Brick Works.
Augusta.....	Algernon Cotton Mills	Dyeing Works.
Augusta.....	Augusta Gas Light Co.	Enlarge Works.
Augusta.....	Thompson-Houston Elec	Light Co.
Augusta.....	Geo. R. Lombard & Co.	Enlar. Fdy. & Mach. Shop.
Barnesville.....	O. N. Grise & Co.	Ice Factory.
Barnesville.....	H. E. Barnes	Oyster Canning Factory.
Barnesville.....	Johnson & Gwinn	Grist Mill.
Barnesville.....	John W. Tomlinson	Gold Mining.
Barnesville.....	John W. Gordon	Gold Mining.
Barnesville.....	Alta California Mining Co.	Gold Mining.
Barnesville.....	American Mining Co.	Gold Mining.
Barnesville.....	Central Co.	Mining, &c.
Barnesville.....	W. C. Baker	Ore Mining.
Barnesville.....	Albert N. Tumlin	Ore Mining.
Barnesville.....	H. W. Dean Co.	Re Mining.
Barnesville.....	Polk County Mining Co.	Mining.
Barnesville.....	Harris & Mitchell	Stain Factory.
Barnesville.....	Bruce & Allen	Saw Mill.
Barnesville.....	J. W. Moon & Co.	Planing Mill.
Barnesville.....	Holland Bros.	Ginney.
Barnesville.....	W. Iker Bros	Ochre Mining.
Barnesville.....	Columbus Electric Light Co.	Electric Light Works.
Barnesville.....	Frankska Mining Co.	Ochre Mining and Mfg.
Barnesville.....	Conyers Gold & Granite Co.	Quarrying.
Barnesville.....	Foster Car Coupling Co.	Car Couplers.
Barnesville.....	J. L. Wallace	Stain Mining.
Barnesville.....	S. S. Smith	Mining.
Barnesville.....	Barlow Mine	Stain Mining.
Barnesville.....	Dalton Compress Co.	Cotton Compress.
Barnesville.....	Pratt & Kenson	Cotton-Seed Oil Mill.
Barnesville.....	Dublin Brick Co.	Brick Yard.
Barnesville.....	Etna Furnace Co.	To Repair Furnace.
Barnesville.....	Atlantic Min. & Cons. Co.	Gold Mining.
Barnesville.....	David Simpson	Saw and Grist Mill.
Barnesville.....	Osborn & Wolcott	Enlarge Chair Factory.
Barnesville.....	Carter & Shattuck	Planing Mill.
Barnesville.....	M. P. Riviere	Brick Works.
Barnesville.....	Waters & Fox	Handle Fact'y & Saw Mill.
Barnesville.....	G. W. Collins	Marble Quarrying.
Barnesville.....	G. W. Swords	Distillery.
Barnesville.....	Payne & Willingham	Enlarge Furniture Fact'y.
Barnesville.....	C. C. Stratton & Co.	Enlarge Brick Works.
Barnesville.....	Jeter & Boardman Water	Gas, Water and Electric
Barnesville.....	& Gas Assn.	Light Works, &c.
Barnesville.....	Macon Clay Works	Pottery.
Barnesville.....	W. H. Moxley & Co.	Planing Mill & Box Fac'y.
Barnesville.....	Brice & Adams	Grist Mill.
Barnesville.....	W. T. Conn & Co.	Candy Factory.
Barnesville.....	J. J. Sanders	Ginney.
Barnesville.....	St. George Gold Mining Co.	Mining.
Barnesville.....	Parks & Arnold	Carriage Factory.
Barnesville.....	Normandale Lumber Co.	Saw Mill.
Barnesville.....	J. K. Smith	Quarrying.
Barnesville.....	Daniel & Reed	Mill.
Barnesville.....	K. H. Williams & Mabbett	Fertilizer Factory.
Barnesville.....	Quitman	Lumber Mill.
Barnesville.....	Rochelle	Saw Mill.
Barnesville.....	Rome Gas Co.	Electric Light Plant.
Barnesville.....	W. G. Watson & Foster	Saw Mill.
Barnesville.....	J. O'Neill	Saw Mill.
Barnesville.....	G. G. Foster and others	Saw Mill.
Barnesville.....	Savannah Cold Storage &	Ice Mfg. Co., &c.
Barnesville.....	Ice Mfg. Co.	Ice Factory, &c.
Barnesville.....	Stevens Pottery	Stevens Bros. & Co.
Barnesville.....	Wood & Payne	Distillery.
Barnesville.....	Tallapoosa Mach. & Fdy. Co.	Foundry & Mach. Shop.
Barnesville.....	Tallapoosa Mal. Iron Wks.	Iron Works.
Barnesville.....	Martin & Crandall	Saw Mill.
Barnesville.....	Tallapoosa Mal. Iron Wks.	Brick Works.
Barnesville.....	John F. Lang Co.	Brick Works.
Barnesville.....	Tallapoosa Furnace Co.	Furnace.
Barnesville.....	Parker & Leach	Broom Factory.
Barnesville.....	Tallapoosa Lumber Co.	Lumber.
Barnesville.....	Trion Mfg. Co.	Improve Cotton Mill.
Barnesville.....	Winston	Saw Mill.

## KENTUCKY.

Ashland.....	White House Cannel Coal Co.	Coal Mining.
Ashland.....	Sparger Lumber Co.	Planing Mill.
Ashland.....	Saw, D. C.	Saw Foundry.
Ashland.....	Ash'd El. Lt. & Power Co.	Electric Light Plant.

Ashland.....	United States Electric Ry.	Electrical Appliances.
Ashland.....	Signal Co.	Signal Co.
Ashland.....	C. H. Crowell	Saw and Planing Mill.
Ashland.....	Judd & Hogg	Improved Flour Mill.
Ashland.....	The City.....	Electric Light Plant.
Ashland.....	Jas. T. Pierce and others	Coal Mining.
Ashland.....	Rogers & Bastian	Flour Mill.
Ashland.....	Carroll Gas, Oil & Trad. Co.	Natural Gas.
Ashland.....	Automatic Shaft Holder Co.	Shaft Holders.
Ashland.....	Geo. W. Galbraith	Improved Flour Mill.
Ashland.....	Covington Distilling Co.	Distillery.
Ashland.....	Mason & Orndorff	Improved Flour Mill.
Ashland.....	Stephens & Stephens	Stave Factory.
Ashland.....	John R. Phillips & Co.	Improved Flour Mill.
Ashland.....	Duncan & Hassan	Distillery.
Ashland.....	Webster Cate	Mill.
Ashland.....	Wm. Cooper	Shingle Mill.
Ashland.....	Diamond Oil Co.	Oil Prospecting.
Ashland.....	Ware Cannel Coal Co.	Coal Mining.
Ashland.....	Kentucky Central R. R. Co.	Coal Mining.
Ashland.....	Columbia Mining Co.	Mining.
Ashland.....	F. Leib & Sons	Port Packing House.
Ashland.....	Gayer Electric Supply Co.	Fire Alarm Apparatus.
Ashland.....	Falls City Lithographing	Increased Capital.
Ashland.....	& Job Printing Co.	
Ashland.....	Beach Woods Gas & Min-	Mining, &c.
Ashland.....	ing Co.	
Ashland.....	Vaughn & Co.	Tobacco Factory.
Ashland.....	W. H. Metz & Co.	Enlarge Stave Factory.
Ashland.....	J. Schwartzwalder & Son	Stave Factory.
Ashland.....	Frank Fehr	Brewery.
Ashland.....	Hydraulic Pressed Brick Co.	Enlarge Capital.
Ashland.....	Falls City Asphalt Varn. Co.	New Works.
Ashland.....	Standard Dry Kiln Co.	Manufacturing.
Ashland.....	Ohio Valley Gas Co.	Natural Gas.
Ashland.....	Becker Refining Co.	Cotton-Seed Oil Refinery.
Ashland.....	Oregon Silv. Cr'k Min. Co.	Mining.
Ashland.....	Tapp, Leathers & Co.	Jeans Factory.
Ashland.....	McIntire & Co.	Sash and Door Factory.
Ashland.....	McNutt	Grist Mill.
Ashland.....	Robson-Stegeman Dist. Co.	Distillery.
Ashland.....	Cincinnati Oil Fuel Co.	Stoves, Oil, &c.
Ashland.....	Mexican Tin Reduction Co.	Tin Mining.
Ashland.....	L. M. Jackson & Co.	Flour Mill.
Ashland.....	L. B. Wilford	Flour Mill.
Ashland.....	H. Hicks & Son	Gr' Mill & W'l Card. Fac.
Ashland.....	L. Tabors	Grist Mill.
Ashland.....	Owensboro Water Co.	Improved Water Works.
Ashland.....	Jay Hardy	Tobacco Factory.
Ashland.....	Frank Ebelhaar	Pork Packing.
Ashland.....	H. M. Richmond	Saw Mill & Wood-Wk. Fac.
Ashland.....	Green River Coal & Min. Co.	Coal Mining.
Ashland.....	Pine Mount Iron & Coal Co.	Mining, &c.
Ashland.....	Huffman & Bro.	Saw and Planing Mill.
Ashland.....	C. C. Eastin & Sons	Saw Mill.
Ashland.....	Rock Castle Co. R. T. Elkin	Saw Mill.
Ashland.....	Cincinnati South'n R. R. Co.	Machine Shops.
Ashland.....	M. Duke	Saw Mill.
Ashland.....	Gill & Jones	Coal Mining.
Ashland.....	Williams & Co., nr. Hoffman Bros.	Saw Mills.
Ashland.....	John A. Tanner	Corn Mill.
Ashland.....	Jones & Gay	Hemp Factory.

## LOUISIANA.

Baton Rouge.....	Smedley & Wood	Water Works.
Baton Rouge.....	J. P. Brewer	Mill.
Baton Rouge.....	Julius Verrett	Mill.
Baton Rouge.....	H. P. Fournet	Ginney.
Baton Rouge.....	P. Leiber	Saw Mill.
Baton Rouge.....	Mir den R. R. & Comp. Co.	Cotton Compress.
Baton Rouge.....	New Iberia, nr. A. Vallet	Sugar Mill.
Baton Rouge.....	Joseph Seidel & Bros.	Furniture Factory.
Baton Rouge.....	A. K. Finley & Lehman	Chemical Factory.
Baton Rouge.....	N. H. Evans & Lock Co.	Iron Safe Factory.
Baton Rouge.....	Lubricating Oil Co.	Mining, &c.
Baton Rouge.....	Louisiana Ice Co.	Ice, &c.
Baton Rouge.....	The Orleans C-operative Co.	Clothing Factory.
Baton Rouge.....	Southern Instal. Co.	Silverware.
Baton Rouge.....	Pelican Brewing Co.	Brewery.
Baton Rouge.....	O'Connor & Reynolds	Architect. Iron Works.
Baton Rouge.....	Colum. Co-opers. Broom	Increased Capital.
Baton Rouge.....	Mfg. Co.	
Baton Rouge.....	Thomas Killeen	Iron Foundry.
Baton Rouge.....	A. Booth & Co.	Oyster Canning Factory.
Baton Rouge.....	Union Protec. Cigar Manf.	Cigar Factory.
Baton Rouge.....	Sediment M. chine Co.	Filtering Machines.
Baton Rouge.....	Weekender Brewing Co.	Improved Brewery.
Baton Rouge.....	Dalman, Esteve & Co.	Cork Factory.
Baton Rouge.....	Shreveport, Pharr & Williams	Saw Mill.
Baton Rouge.....	H. H. Youres	Ice Factory.

## MARYLAND.

Baltimore.....	Consumer's Wat'r & Illum.	Gas and Water Works.
Baltimore.....	Geo. Gunther	Enlarge Brewery.
Baltimore.....	Mineral Dev. & Artesian	Mining, &c.
Baltimore.....	Water Co.	
Baltimore.....	Waterhouse Electric Co.	Electric Light Works.
Baltimore.....	Baxter Electric Motor Co.	In. Cap. & New Works.
Baltimore.....	Tunis Lumber Co.	Lumber.
Baltimore.....	Lewis Elmer & Son	Yeast Factory.
Baltimore.....	Kemp, King & Co.	Type Foundry.
Baltimore.....	Edicott Machine Co.	Enlarge Works.
Baltimore.....	John Ryan Co.	Type Foundry.
Baltimore.....	A. McCree & Co.	Shoe Factory.
Baltimore.....	John Faust & Son	Shoe Factory.
Baltimore.....	Balto. Co-operative Furn.	Furniture Factory.
Baltimore.....	Mfg. Co.	
Baltimore.....	John H. Barnes	Chinaware Works.
Baltimore.....	Climax Cash Register Co.	Cash Registers.
Baltimore.....	Thompson-Houston Elec	Electric Light Works.
Baltimore.....	tric Light Co.	
Baltimore.....	American Electric Co.	Electric Light Works.
Baltimore.....	West, Hughes & Co.	Lead Pencil Factory.
Baltimore.....	Md. Central R. R. Co.	Machine Shop.
Baltimore.....	Jacobs & Wilson Co.	Builders' Supplies.
Baltimore.....	Oriental Brewing Co.	Brewery.
Baltimore.....	Oriental Brewing Co.	Ice Factory.
Baltimore.....	M. S. Pachod	Cigar Factory.
Baltimore.....	M. McCormick	Carriage Factory.
Baltimore.....	P. Hanson His Mfg. Co.	Furn. ure Factory.
Baltimore.....	J. Bauer Schmidt	Enlarge Brewery.
Baltimore.....	Blue Ball	Ice Creamery.
Baltimore.....	C. Conner	Ice Creamery.
Baltimore.....	Choptank Iron Ore Min. Co.	Ore Mining.
Baltimore.....	Lyddane, Jones & Co.	Flour Mill.
Baltimore.....	E. M. & T. F. Garey	Remodel Flour Mill.
Baltimore.....	Shannon & Wrightson Can-	Canning Factory.
Baltimore.....	ning Co.	
Baltimore.....	Hubbard Bros.	Canning Factory.
Baltimore.....	W. H. Wilson & Co.	Flour Mill.
Baltimore.....	Chas. G. Wells & Co.	Cigar Factory.
Baltimore.....	Cecil Hedge & Wire Fen. Co.	Fence Factory.
Baltimore.....	Frederick Seamless Ho-	Enlarge Factory.
Baltimore.....	lery Co.	
Baltimore.....	W. Holly	Mill.
Baltimore.....	Wm. Wiesner and others	Electric Light Plant.
Baltimore.....	David M. Evans	Saw Mill.
Baltimore.....	John Famous	Canning Factory.
Baltimore.....	Mount Vernon Co.	Machine Repair Shops.
Baltimore.....	Cranshaw	Cranshaw.
Baltimore.....	Isaac Staub	Corn and Saw Mill.
Baltimore.....	Salt-bury Water Works Co.	Water Works.
Baltimore.....	G. H. Toadwine	Enlarge Planing Mill.
Baltimore.....	Collins, Vincent & Robins	Electric Light Works.
Baltimore.....	Crockett & Riggins	Canning Factory.
Baltimore.....	Wm. J. Dickey & Son	Woolen Mill.
Baltimore.....	A. F. Childs	Novelty Factory.
Baltimore.....	Linotype Machine Co.	Type Setting Machines.
Baltimore.....	Columbia Lt., Pow. & Ht. Co.	Stone Quarry.

## MISSISSIPPI.

Aberdeen.....	Aberdeen Tannery Co.	Tannery.
Amory.....	Kansas City, Memphis &	Machine Shops, &c.
Amory.....	Birmingham R. R.	
Angola.....	S. A. Ramsey	Lumber Mill.
Bay St. Louis.....	K. of L. Canning Co.	Canning Factory.
Biloxi.....	Keystone Lumber Co.	Planing Mill.
Bogus Chitto.....	Res. vo Land, Lumber &	Saw and Shingle Mill.
Cleveland.....	Shingle Co.	
Cobbs Switch.....	Robert Gibson	Creamery.
Columbus.....	A. S. Mullins	Saw Mill.
Columbus.....	Hale Lumber & Milling Co.	Saw and Grist Mill.
Crystal Springs.....	Young & Rhymes	Box Factory.
Duck Hill.....	Greenville News, & Pr'g Co	Printing, &c.
Greenville.....	Greenville News, & Pr'g Co	Printing, &c.
Gulf Port.....	Childer, May & Co.	Planing Mill.
Jackson.....	Each & Co.	Lumber Mill.
Jackson.....	McAfee & Martin	Saw Mill.
Jackson Co.....	T. C. Irving & Co.	Enlarged Saw Mill.
Lloydville.....	B. W. Webb	Saw Mill.
Maldron Stat.....	Meridian Boiler Factory	Enlarged.
Meridian.....	Meridian Boiler Factory	Enlarged.
Meridian.....	Sipey Val Coal & Min. Co.	Mining, &c.
Meridian.....	Miss. Lum. & Mfg. Co.	Lumber Mills.
Meridian.....	Hos. & Griffin	Improved Saw Mill.
Meridian.....	Pascagoula Lumber Co.	Improved Saw Mill.
Meridian.....	Yellow Pine Lumber Co.	Planing Mill & Saw Mill.
Meridian.....	Weatherly & Hood	Saw Mill.
Meridian.....	Warren Oil Mill	Improved Oil Mill.
Meridian.....	Mississippi Mill	Enl. Cotton & Wool. Mill.
West Point.....	West Point Trade & Co.	Agricultural Impl. &c.
West Point.....	operative Mfg. Assn.	
West Point.....	Yazoo Delta Land & Lum-	Saw Mills, &c.
West Point.....	ber Co.	
West Point.....	H. O. Ziegler	Mill.

## NORTH CAROLINA.

Ansonville.....	W. B. Little	Mill.
Ansonville.....	Avery & Erwin	Enlarge Furniture Fact'y.
Ansonville.....	Ashville Ice Co.	Ice Factory.
Ansonville.....	H. T. Collins	Planing Mill.
Ansonville.....	Big Falls Cotton Mills	Cotton Mill.
Ansonville.....	Ivy & Crowell	Ginney.
Ansonville.....	C. Goforth & Son	Saw Mill.
Ansonville.....	Furr Mine	Mining.
Ansonville.....	N. Young	Saw Mill.
Ansonville.....	Mild Mountain Land &	Mining.
Ansonville.....	Mining Co.	
Ansonville.....	Co-operative Mfg. Co.	Cotton Mill.
Ansonville.....	Cleveland Cotton Mills Co.	Cotton Mill.
Ansonville.....	Concord Electric Light Co.	Electric Light Works.
Ansonville.....	J. D. McNeill & Hall	Saw and Planing Mill.
Ansonville.....	E. J. Robinson & Son	Saw Mill.
Ansonville.....	Robertson	Coal Mining.
Ansonville.....	Frank Hros	Saw Mill and Grist Mill.
Ansonville.....	T. D. Jones	Tobacco Prize Factory.
Ansonville.....	De Kramers	Tobacco Drying Mach'y.
Ansonville.....	T. Pinnix & Co.	Tobacco Factory.
Ansonville.....	Durham Wood & Iron Mfg.	Mach. Shop & Fact'y, &c.
Ansonville.....	& Builders Supply Co.	
Ansonville.....	W. F. Williams	Grist Mill.
Ansonville.....	Peacock & Hembick	Shut. Bk. & Hand. Fac.
Ansonville.....	Hop. Mfg. Co.	Enlarge Cotton Mill.
Ansonville.....	H. G. Hall	Woolen Mill.
Ansonville.....	De Richards	Saw and Planing Mill.
Ansonville.....	W. H. Jones	Saw and Planing Mill.
Ansonville.....	A. L. Hall	Gin.
Ansonville.....	H. G. Trotter	Flour and Corn Mill.
Ansonville.....	J. S. Joyner	Corn Mill.
Ansonville.....	Gastonia Mfg. Co.	Cotton Mill.
Ansonville.....	H. A. Morris	Mill.
Ansonville.....	N. C. Real Estate Co.	Saw Mill.
Ansonville.....	Exley & Murtagh	Mining.



LOCATION.	NAME.	BUSINESS.	LOCATION.	NAME.	BUSINESS.	LOCATION.	NAME.	BUSINESS.	
Charleston.	Cameron & Barkley Co.	Machine Works.	Whitesburg.	W. A. Rader & Co.	Flour Mill.	Richmond.	Long Island Cons. Gold	Mining.	
Charleston.	Steinmayer Lum. Mfg. Co.	Lumber.	Winchester.	Walton	Stave Factory.	Roanoke.	Roanoke Gold Mining Co.	Gold Mining	
Charleston.	Charleston Ice Mfg. Co.	Ice Factory.	Winchester.	J. S. Vaughn & Co.	Box Fac'y & Planing Mill.	Roanoke.	Virginia Packing Co.	Fruit Canning Factory.	
Cheraw.	Cheraw Iron Works.	Iron Works.	Winchester.		Foundry.	Roanoke.	Hughes & Camp.	Saddlery Factory.	
Chester.	John Bratton Works.	Gold Mine.				Roanoke.	J. W. Flaherty and others.	Flour Mill.	
Columbia.	Dial Engine Works.	Engine and Boiler Wks.				Salem.	Krise Iron Co.	Mining.	
Donaldsonville.	James E. Todd.	Flour Mill.				Salem.	Geo. F. Heller.	Cigar Factory.	
Enoree.	Enoree Mfg. Co.	Cotton Mill.				Scottsville.	P. P. Gantt.	Flour Mill.	
Florence.	Hodges & Newton.	Planing and Grist Mill.				Sherando.	Eugene Irvine.	Remodeled Mill.	
Fort Mill.	Fort Mill Mfg. Co.	Cotton Mill.				South Boston.	Edmondson	Leaf Tobacco Factory.	
Greenville.	Piedmont Mfg. Co.	Improved Cotton Mill.				Staunton.	J. H. Connell.	Fire Brick Works, &c.	
Greenville.	Dantzler & Mackey.	Furniture Factory.				Staunton.	Thompson-Houston Elect.	Enlarged Plant.	
Greenville.	Lanoue Mfg. Co.	Cotton Mill.				Stone Bridge.	Stone Bridge Cream'y Assn.	Creamery.	
Hamdenville.	Hampton Brick Works.	Brick Yard.				Suffolk.	McCleary & Manning	Grist Mill.	
Jackson Station.	Jesse H. Bradley.	Grist Mill.				Suffolk.	Holy Neck Lum. & Trans.	Saw Mill.	
Lanes.	Wellington & Reeves.	Saw Mill.				Suffolk.	Gay Mfg. Co.	Saw Mill.	
Langley.	Red Bank Mfg. Co.	Enlarge Cotton Mill.				Sutherland.	John B. Anderson.	Spoke & Handle Factory.	
Langley, near.	Hill-Johnson Mfg. Co.	Enlarge Paper Mill.				Swift Creek.	P. P. Gantt.	Saw and Planing Mill.	
Laurens.	Geo. B. Anderson.	Cotton Mill.				Tazewell C. H.	Shamokin Coal & Coke Co.	Coke Ovens.	
Marion.	Marion Cotton Mfg. Co.	Cotton Mill.				Trappe.	R. B. Grimes.	Grist Mill.	
Marion.	Marion Iron Works Co.	Machine Shop.				Triford, near.	James H. Paxton.	Ore Mining.	
Marion.	Elm City Iron Works Co.	Enlarge Works.				Va.	Chester Lumber & Mfg. Co.	Manufacturing.	
Newberry.	H. M. Singsley & Co.	Saw Mill.				Walkerton.	Thatcher & Tavenner.	Grist Mill.	
Peck's Station.	Cameron & Barkley.	Stave & Handle Factory.				Wise County.	S. Bitley.	Saw Mill.	
Sampt.	P. D. Bourne.	Saw and Grist Mill.				Wytheville.	John H. Fulton.	Canning Factory.	
Sanders.	O. P. Wilson.	Cotton Mill.							
Spartanburg.	Spartanburg Wtr. Wks. Co.	Water Works.							
Sumter.	Sumter Water Works Co.	Water Works.							
Wallaceville.	A. W. Lever.	Flour Mill.							
Winnboro.	Winnboro Granite Co.	Quarrying.							

### TENNESSEE.

Apton.	Webb & Jordan.	Grist Mill.	Alaska.	Alaska Coal & Coke Co.	Coal Mining, &c.
Athens.	Athens Mining & Mfg. Co.	Water Works.	Ansted.	Mill Creek Coal & Coke Co.	Coal Mining, &c.
Athens.	Moore.	Chair Factory.	Belleville.	Geo. W. Curtis.	Saw Mill.
Bartlett.	Bartlett Mill & Manfg. Co.	Manufacturing.	Belleville.	Belleville Mill Co.	Flour Mill.
Big Rock.	E. F. Martin.	Flour Mill.	Brookside.	Wm. Frush.	Flour Mill.
Blount County.	Flanagan Chair Co.	Improved Chair Factory.	Buckhannon.	Hart & Griffin.	Flour Mill.
Bristol.	Twin City Mill Co.	Flour Mill.	Buffalo.	R. T. Harvey.	Paint Mill.
Bristol.	Bristol Mfg. & Trust Co.	Furniture Factory.	Burlington.	Buffalo Lumber Co.	Saw Mill.
Bristol.	Howard Murphy & others.	Water Works.	Byard.	Buffalo Lumber Co.	Lumber & Furn. Factory.
Bristol.	Onev & Henegar.	Planing Mill.	Charleston.	Henry Disher.	Sash and Door Factory.
Bristol.	Bristol-Goodson Electric Light & Power Co.	Electric Light Works.	Charleston.	Dry Branch Coal Co.	Coal Mining, &c.
Bristol.	Riley Stone.	Improved Flour Mill.	Charleston.	Kanawha Improvement Co.	Coal Mining, &c.
Centerville.	Cent. Peanut Cleaning Co.	Increased Capital.	Charleston.	Humbird Davis Crk. Coal Co.	Mining, &c.
Chattanooga.	South Tredegar Iron Co.	Nail Mill.	Charleston, n.r.	Geo. Straughn.	Coal Mine.
Chattanooga.	Chatta. Cement Mfg. Co.	Cement Factory.	Clifton.	Hampden Fdy. & Mach. Co.	Stove and Machine Works.
Chattanooga.	Chatta. Ice, Hot. & Vin. Co.	Vinegar Factory, &c.	Davis.	H. G. Davis & Bro.	Coke Ovens.
Chattanooga.	Emory Co. & Railway Co.	Mining, &c.	Echo.	H. G. Davis & Bro.	Coal Mine.
Chattanooga.	John Hendra.	Brass Foundry.	Echo.	O. A. & W. F. Thayer.	Coal Mining.
Chattanooga.	F. E. Champer.	Broom Factory.	Elizabeth, near.	M. B. McIntosh.	Saw Mill.
Chattanooga.	Commercial Printing Co.	New Machinery.	Graysville.	L. F. Gray & Son.	Improved Flour Mill.
Chattanooga.	Brad's Printing Co.	Printing, &c.	Guyandotte.	Irvin Hartzell.	Woolen Mill.
Chattanooga.	W. B. Farrar Lumber Co.	Planing Mill.	Guyandotte.	Huntington Water Wks. Co.	Water Works.
Chattanooga.	Cincinnati S'tern R.R. Co.	Enlarge Machine Shops.	Huntington.	Doyle & Co.	Machine Shop.
Chattanooga.	American Ref. & Con. Co.	Ice Factory.	Huntington.	Ensign Mfg. Co.	Enlarging Foundry.
Chattanooga.	Champion St'm Broom Wks.	Broom Factory.	Huntington.	Ingram & O'Neill.	Machine Shops.
Chattanooga.	Fox Coal & Coke Co.	Mining, &c.	Jane Lew.	W. B. Fisher.	Saw Mill.
Clarksville.	Arctic Ice Co.	Ice Works.	Marionburg.	Berkley Cr. Harvester Co.	Agricultural Implem't Fac.
Clarksville.	Benj. F. McKee.	Tobacco Steamery.	Oak Hill.	Duncan & Hill.	Flour Mill.
Clarksville.	G. L. Carlisle & Co.	Flour Mill.	Parkersburg.	Parkersburg Ice Co.	Ice Factory.
Cleveland.	Henry W. Horner.	Mattress Factory.	Ronceverte.	W. H. McClintic.	Flour Mill.
Cleveland.	Geo. Carlyle & Son.	Fire-Brick Works.	Ronceverte.	Greenbrier Valley Dressed	Meat Packing.
Clinton.	H. P. Narcross.	Planing Mill.	St. Mary's.	The Timber Land & Mer. Co.	Saw Mill.
Columbia.	H. M. Buchanan.	Carriage Factory.	Thornton.	J. C. Painter & Bro.	Saw Mill.
Cottage Grove.	R. H. Todd.	Saw Mill.	Valley Falls.	John Bradshaw.	Flour Mill.
Daisy.	Tabler & Co.	Ice Mining.	Wellburg.	Gas City Oil & Gas Co.	Natural Gas.
Fayetteville.	American Ref. & Cons. Co.	Ice Factory.	Wheeling.	Wheeling Electrical Co.	New Plant.
Fayetteville, n.r.	Fayetteville Electric Light & Power Co.	Electric Light Works.	Wheeling.	United States Oil Co.	Oil and Gas.
Fayetteville.	John L. Waggoner.	Saw Mill.	Wheeling.	Wheeling Pottery Co.	Enlarged Works.
Fountain Ck. n.r.	G. Fleming.	Quarrying.	Wheeling.	Tiltonville Pottery Co.	Pottery Works.
Gallatin.	Walter Door Mills.	Improved Door Factory.	Wheeling.	Reymon Brewing Co.	Improved Brewery.
Gallatin.	E. D. Bell and others.	Spoke Factory.	Wheeling.	C. H. Sawyer.	Base Ball Covers.
Graysville.	J. R. McDonal.	Grist Mill.	Wirt County.	M. B. McIntosh.	Saw Mill.
Graysville.	S. M. Winchester.	Coal Mining.			
Jacksboro.	Henry Vinsant & Gross.	Saw Mill.			
Jackson.	Citizens Gas Co.	Double Gas Works.			
Johnson City.	Cagle.	Bed Spring Factory.			
Johnson City.	Johnson City Furniture Co.	Increased Capital.			
Johnson City.	Johnson City Brick Mfg. Co.	Brick Works.			
Johnson City.	Frank A. Stratton.	Planing Mill.			
Johnson City.	Frank Evans.	Furniture Factory.			
Johnson City.	D. G. Colson.	Mattress & Trunk Fact'y.			
Johnson City.	E. R. Tinsley.	Handle Factory.			
Knoxville.	Keith.	Box Factory.			
Knoxville.	Standard Oil Co.	Cooperation Factory.			
Knoxville.	Johnson Marley Co.	Shingle Quarrying.			
Knoxville.	Unaka Soap Works.	Soap Factory.			
Knoxville.	E. B. Stone.	Furniture Factory.			
Knoxville.	Southern Car Works.	Enlarge Works.			
Knoxville.	Cumberland Gap Mining & Mfg. Co.	Mining, &c.			
Knoxville.	Knoxville Electric Light Co.	Increased Plant.			
Knoxville.	Oriental Marley Co.	Shingle Quarrying.			
Loudon.	Hood & Robinson.	Bricks.			
Memphis.	Aldrich Sew'g Machine Co.	Sewing Machines.			
Memphis.	Bartlett Hill Mfg. Co.	Manufacturing.			
Memphis.	Williams & Co.	Planing Mill.			
Memphis.	W. C. Bell.	Saw and Planing Mill.			
Memphis.	Cochran & Co.	Improve Saw Mill.			
Memphis.	D. H. Ball.	Shingle Machinery.			
Memphis.	Renova Land, Lumber & Shingle Co.	Box Fac'y & Plan'g Mill.			
Memphis.	Shingle Co.	Shingle Machinery Works.			
Memphis.	Renova Land, Lumber & Shingle Co.	Shingle Factory.			
Memphis.	National Mfg. Co.	Manufacturing.			
Memphis.	Memphis Cotton Press & Storage Co.	Cotton Compress.			
Memphis.	Williford Mfg. Co.	Bucket & Barrel Factory.			
Memphis.	Memphis Mfg. & Bldg. Co.	Increased Capital.			
Memphis.	J. H. Anthony.	Planing Mill.			
Memphis.	Barliff Mfg. Co.	Manufacturing.			
Memphis.	Ackerman.	Handle Factory.			
Memphis.	Gregg Mfg. Co.	Enlarge Ag. Imp. Works.			
Memphis.	Morrison Mfg. Co.	Flour Mill.			
Memphis.	Merritt Milling Co.	Flour Mill.			
Memphis.	Thompson-Houston Elect.	Electric Light Works.			
Memphis.	John L. Co.	Foundry.			
Memphis.	Neely Bros.	Brick Yard.			
Memphis.	Minnesota Mining Co.	Mining.			
Memphis.	Laurel Hill Mfg. Co.	Mining and Mfg.			
Memphis.	Charles Dunlap.	Planing Works.			
Memphis.	Jenny El. L. & Power Co.	Electric Light Works.			
Memphis.	Polar Refrigerator Co.	Refrigerator Factory.			
Memphis.	Davidson Motor Co.	Motor Cars, &c.			
Memphis.	Nash, Roofing & Paving Co.	Roofing.			
Memphis.	Enterprise Mfg. Co.	Manufacturing.			
Memphis.	Geo. W. W. Sweeney.	Carriage Factory.			
Memphis.	Newville Lumber Co.	New Saw Mill &c.			
Memphis.	Newmarket Canning Co.	Cann'g Factory.			
Memphis.	A. S. Miller.	Mill.			
Memphis.	A. F. Willey.	Saw Mill.			
Memphis.	Serviere Lumber Co.	Saw Mill.			
Memphis.	Wilhoite & Sanders.	Enlarge Wagon Factory.			
Memphis.	Dry Creek Silver Min. Co.	Mining.			
Memphis.	Sparta Spoke & Handle Fcy.	Spoke & Handle Factory.			
Memphis.	Craighead.	Improved Flour Mill.			
Memphis.	W. M. Menee.	Saw Mill.			
Memphis.	Joseph Samuel.	Saw Mill.			
Memphis.	Talbot Mill Co.	Flour Mill.			
Memphis.	J. C. W. Fenn.	Spoke & Handle Factory.			
Memphis.	X Rds Geo. N. Wade.	Flour Mill.			
Memphis.	Beck, Bransford & Ekdall.	Electric Light.			

### TEXAS.

Austin.	The Farmers' Alliance.	Flour Mill.	Alaska.	Alaska Coal & Coke Co.	Coal Mining, &c.
Austin.	Capital Lt. Power, Water & Heating Co.	Light and Power Plant.	Ansted.	Mill Creek Coal & Coke Co.	Coal Mining, &c.
Austin.	Rogers & Isherwood.	Cheese Factory.	Belleville.	Geo. W. Curtis.	Saw Mill.
Baird.	J. S. Foy.	Mill and Gin.	Belleville.	Belleville Mill Co.	Flour Mill.
Beaumont.	Farmers' Alliance.	Water Works.	Brookside.	Wm. Frush.	Flour Mill.
Beaumont.	The City.	Water Works.	Buckhannon.	Hart & Griffin.	Flour Mill.
Bowie.	Frost.	Coal Mining.	Buffalo.	R. T. Harvey.	Paint Mill.
Bowie.	J. H. Stephens.	Coal Mining.	Burlington.	Buffalo Lumber Co.	Saw Mill.
Burnet.	Shannon & Edman.	Granite Cutting Mill.	Byard.	Buffalo Lumber Co.	Lumber & Furn. Factory.
Coriscana.	Coriscana El. & Bot. Co.	Manufacturing, &c.	Charleston.	Henry Disher.	Sash and Door Factory.
Coriscana.	Coriscana El. Lt. & Pow. Co.	Enlarge Electric Plant.	Charleston.	Dry Branch Coal Co.	Coal Mining, &c.
Coriscana.	Drane & Son.	Cora Mill.	Charleston.	Kanawha Improvement Co.	Coal Mining, &c.
Coriscana.	P. Vansteenburg.	Carriage Factory.	Charleston.	Humbird Davis Crk. Coal Co.	Mining, &c.
Coriscana.	S. H. Grant.	Trunk Factory.	Charleston, n.r.	Geo. Straughn.	Coal Mine.
Dallas.	Henry Pollock.	Trunk Factory.	Clifton.	Hampden Fdy. & Mach. Co.	Stove and Machine Works.
Dallas.	Co-operative Manf. Alliance.	Furn., Wag. & Plow Fact.	Davis.	H. G. Davis & Bro.	Coke Ovens.
Dallas.	Dallas Electric Lt., Water & Mfg. Co.	Electric Plant.	Echo.	H. G. Davis & Bro.	Coal Mine.
Dallas.	Northwest Texas Mining & Express Co.	Mining, &c.	Echo.	O. A. & W. F. Thayer.	Coal Mining.
Dallas.	Jack Co. Coal & Min. Co.	Improved Flour Mill.	Elizabeth, near.	M. B. McIntosh.	Saw Mill.
Dallas.	James Marshall.	Smelting Works.	Graysville.	L. F. Gray & Son.	Improved Flour Mill.
Dallas.	C. C. Fitzgerald.	Coal Mining.	Guyandotte.	Irvin Hartzell.	Woolen Mill.
Dallas.	El Paso Town Co.	Water Works.	Guyandotte.	Huntington Water Wks. Co.	Water Works.
Dallas.	Spanish Moss Mfg. Co.	Horse Collar Factory.	Huntington.	Doyle & Co.	Machine Shop.
Dallas.	Fort Worth Printing Co.	Printing, &c.	Huntington.	Ensign Mfg. Co.	Enlarging Foundry.
Dallas.	Farmers' Alliance.	Flour Mill.	Huntington.	Ingram & O'Neill.	Machine Shops.
Dallas.	Galveston Soap & Mfg. Co.	Soap Factory.	Jane Lew.	W. B. Fisher.	Saw Mill.
Dallas.	Fort Worth & Rio Grande R. R. Co.	Quarry.	Marionburg.	Berkley Cr. Harvester Co.	Agricultural Implem't Fac.
Dallas.	Granbury Stone Co.	Quarrying.	Oak Hill.	Duncan & Hill.	Flour Mill.
Dallas.	Haney, Pierce & Co.	Flour Mill.	Parkersburg.	Parkersburg Ice Co.	Ice Factory.
Dallas.	Hackberry Alli. Gin'g Co.	Ginny.	Ronceverte.	W. H. McClintic.	Flour Mill.
Dallas.	Hempstead.	Praise View Normal School.	Ronceverte.	Greenbrier Valley Dressed	Meat Packing.
Dallas.	Henke Artesian Ice Co.	Ice Factory.	St. Mary's.	The Timber Land & Mer. Co.	Saw Mill.
Dallas.	Texas Artesian Water Works.	Water Works.	Thornton.	J. C. Painter & Bro.	Saw Mill.
Dallas.	Houston & Texas Central R. R. Co.	Enlarge Machine Shops.	Valley Falls.	John Bradshaw.	Flour Mill.
Dallas.	Rice & Dunbar.	Creamery.	Wellburg.	Gas City Oil & Gas Co.	Natural Gas.
Dallas.	Eckhart Bros.	Brewery.	Wheeling.	Wheeling Electrical Co.	New Plant.
Dallas.	Houston Car Wheel Fdy. Co.	Car Wheel Works.	Wheeling.	United States Oil Co.	Oil and Gas.
Dallas.	J. & W. M. Riel.	Saw Mill.	Wheeling.	Wheeling Pottery Co.	Enlarged Works.
Dallas.	Jacksonville.	Canning Factory.	Wheeling.	Tiltonville Pottery Co.	Pottery Works.
Dallas.	Kyle.	Water Works.	Wheeling.	Reymon Brewing Co.	Improved Brewery.
Dallas.	A. L. McLane and others.	Electric Light Plant.	Wheeling.	C. H. Sawyer.	Base Ball Covers.
Dallas.	Texas & New Mexico Min. & Milling Co.	Increased Capital.	Wirt County.	M. B. McIntosh.	Saw Mill.
Dallas.	McKiel & Johnson.	Wood-Working Factory.			
Dallas.	Marshall.	Marshall Car Wheel & Foundry Co.			
Dallas.	Marshall.	Patent Nutlocks, &c.			
Dallas.	Maysville.	Mill Co.			
Dallas.	McKinney.	Collin County Milling Assn.			
Dallas.	McKinney.	Collin Co. Alli. Mill. Assn.			
Dallas.	Milano.	Milano Co-operative Assn. Mill.			
Dallas.	Nona.	Arthur Hutchins.			
Dallas.	Paris.	Paris Water Co.			
Dallas.	Pittsburg.	Water Works.			
Dallas.	Plant.	Canning Factory.			
Dallas.	Queen City.	Queen City Iron Works.			
Dallas.	Rockland.	Rockland Lumber Co.			
Dallas.	Rusk.	Old Alcaldre Iron Furnace.			
Dallas.	Sabine Pass.	Kansas City & Sabine Pass Coal & Iron Co.			
Dallas.	San Angelo.	Titus Machinery Coal Co.			
Dallas.	San Angelo.	T. O. Richards.			
Dallas.	San Antonio.	Pass R. R. Co.			
Dallas.	San Antonio.	San Antonio Gas Co.			
Dallas.	San Antonio.	Frank Teich.			
Dallas.	San Antonio, n.r.	Mackey & James Smith.			
Dallas.	San Marcos.	Hays County Farmers' Alli.			
Dallas.	Sherman, near.	Wm. Gardenshire.			
Dallas.	Strawn.	Johnson Coal Mining Co.			
Dallas.	Sulphur Springs.	N. H. Hays.			
Dallas.	Sulphur Sp'gs.	Industry Co.			
Dallas.	Sulphur Sp'gs.	G. W. Argenbright.			
Dallas.	Temple.	Burkett.			
Dallas.	Texas.	Pollock Mining Co.			
Dallas.	Texas.	Texas Gas Light Co.			
Dallas.	Tyler.	B. S. Fitzgerald.			
Dallas.	Tyler.	Box and Barrel Factory.			
Dallas.	Victoria.	Thomas O'Connor.			
Dallas.	Waco.	Texas Oil & Gas Co.			
Dallas.	Weatherford.	Weatherford Water, Ice & Light Co.			

### VIRGINIA.

Abingdon.	R. S. Lowry & Co.	Saw Mill.	Alaska.	Alaska Coal & Coke Co.	Coal Mining, &c.
Abingdon.	W. H. Barrow.	Car Factory.	Ansted.	Mill Creek Coal & Coke Co.	Coal Mining, &c.
Abingdon.	B. P. Morrison.	Spring Factory.	Belleville.	Geo. W. Curtis.	Saw Mill.
Alexandria.	American Mfg. & Pub. Co.	Medicines, Boxes, &c.	Belleville.	Belleville Mill Co.	Flour Mill.
Alexandria.	National Mausoleum & Safe Deposit Co.	Safety Vaults.	Brookside.	Wm. Frush.	Flour Mill.
Alleghany Sta.	John Cale.	Distillery.	Buckhannon.	Hart & Griffin.	Flour Mill.
Big Stone Gap.	South Atlantic Coal Co.	Coke Oven.	Buffalo.	R. T. Harvey.	Paint Mill.
Big Stone Gap.	Connellsville Coke & Iron Co.	Coke Ovens.	Burlington.	Buffalo Lumber Co.	Saw Mill.
Brown's Cove.	J. M. East.	Box and Barrel Factory.	Byard.	Buffalo Lumber Co.	Lumber & Furn. Factory.
Buchanan.	Benj. F. McCredden.	Canning Factory.	Charleston.	Henry Disher.	Sash and Door Factory.
Buchanan.	H. E. Boyd.	Box Factory.	Charleston.	Dry Branch Coal Co.	Coal Mining, &c.
Buchanan.	near Anderson Boone.	Canning Factory.	Charleston.	Kanawha Improvement Co.	Coal Mining, &c.
Burke's Mill.	J. B. Campbell.	Saw Mill.	Charleston.	Humbird Davis Crk. Coal Co.	Mining, &c.
Claremont.	Wm. G. Saylor.	Brick Yard.	Charleston, n.r.	Geo. Straughn.	Coal Mine.
Columbia.	Moreton Bros.	Shuttle Block Factory.	Clifton.	Hampden Fdy. & Mach. Co.	Stove and Machine Works.
Crows.	Norfolk & Western R. R.	Machine Shops.	Davis.	H. G. Davis & Bro.	Coke Ovens.
Danville.	W. N. Shelton.	Brick Yard.	Echo.	H. G. Davis & Bro.	Coal Mine.
Danville.	Fauber & Walters.	Ore Mine.	Echo.	O. A. & W. F. Thayer.	Coal Mining.
Fincastle.	Oscar M. Bowyer.	Iron Foundry.	Elizabeth, near.	M. B. McIntosh.	Saw Mill.
Fincastle.	J. T. Crush and others.	Canning Factory.	Graysville.	L. F. Gray & Son.	Improved Flour Mill.
Fredericksbg.	Rappahannock Elect'c Lt. & Power Co.	Double Plant.	Guyandotte.	Irvin Hartzell.	Woolen Mill.
Graham.	Norfolk & Western R. R.	Machine Shops.	Guyandotte.	Huntington Water Wks. Co.	Water Works.
Green Forest.	R. C. Moomaw & Co.	Canning Factory.	Huntington.	Doyle & Co.	Machine Shop.
Green Forest.</					

## TENNESSEE.

Apison.	Webb & Jordan.	Grist Mill.
Athens.	Athens Mining & Mfg. Co.	Water Works.
Athens.	Moore.	Chair Factory.
Bartlett.	Bartlett Mill & Manfg. Co.	Manufacturing.
Big Rock.	E. P. Martin.	Flour Mill.
Blount County.	Planagan Chair Co.	Improved Chair Factory.
Bristol.	Twinn City Mill Co.	Flour Mill.
Bristol.	Bristol Mfg. & Trust Co.	Furniture Factory.
Bristol.	Howard Murphy & others.	Water Works.
Bristol.	Onev & Henegar.	Planing Mill.
Bristol.	Bristol-Goodson Electric	Electric Light Works.
Bristol.	Riley Stone.	Improved Flour Mill.
Centerville.	Cent. Peanut Cleaning Co.	Increased Capital.
Chattanooga.	South Tredgair Iron Co.	Nail Mill.
Chattanooga.	Chatta. Cement Mfg. Co.	Cement Works.
Chattanooga.	Chatta. Ice, Hot & Vin. Co.	Vinegar Factory, &c.
Chattanooga.	Emory Coal & Railway Co.	Mining, &c.
Chattanooga.	John Hendra.	Brass Foundry.
Chattanooga.	F. E. Champion.	Broom Factory.
Chattanooga.	Commercial Printing Co.	New Machinery.
Chattanooga.	Bradt Printing Co.	Printing, &c.
Chattanooga.	W. B. Farrar Lumber Co.	Planing Mill.
Chattanooga.	Cincinnati S'thern R. Co.	Enlarge Machine Shops.
Chattanooga.	American Ref. & Cons. Co.	Ice Factory.
Chattanooga.	Champion St'm Broom Wks.	Broom Factory.
Chattanooga.	Fox Coal & Coke Co.	Mining, &c.
Clarksville.	Arctic Ice Co.	Bottling Works.
Clarksville.	Benj. F. McKeage.	Tobacco Stemmer.
Clarksville.	G. L. Carlisle & Co.	Flour Mill.
Cleveland.	Henry W. Horner.	Mattress Factory.
Cleveland.	Geo. Carlyle & Son.	Fire-Brick Works.
Clinton.	H. P. Nancarrow.	Ice Factory.
Columbia.	W. M. Buchanan.	Carriage Factory.
Cottage Grove.	R. H. Todd.	Saw Mill.
Daisy.	Tabler & Crudup Coal & Coke Co.	Increase Mining.
Fayetteville.	American Ref. & Cons. Co.	Ice Factory.
Fayetteville.	Fayetteville Electric Light	Electric Light Works.
Fayetteville.	John L. Waggoner.	Saw Mill.
Fountain Ck. nr. L.	G. Fleming.	Quarrying.
Fullers.	Burgner Bros.	Sash and Door Factory.
Gallatin.	Walter Flour Mills.	Improved Flour Mill.
Gallatin.	E. D. Bell and others.	Spoke Factory.
Graysville.	J. R. McDonald.	Grist Mill.
Graysville.	S. M. Winchester.	Coal Mining.
Jacksboro.	Henry Vinsant & Gross.	Saw Mill.
Jackson.	Richins Gas Co.	Enlarge Gas Works.
Johnson City.	Cagle.	Bed Spring Factory.
Johnson City.	Johnson City Furniture Co.	Increase Capital.
Johnson City.	Johnson City Brick Mfg. Co.	Brick Works.
Johnson City.	Frank A. Stratton.	Planing Mill.
Johnson City.	Frank Evans.	Furniture Factory.
Johnson City.	D. G. Colson.	Mattress & Trunk Fact'y.
Johnson City.	E. R. Tinsley.	Handle Factory.
Knoxville.	Keith.	Box Factory.
Knoxville.	Standard Oil Co.	Change Factory.
Knoxville.	Lebanon Marble Co.	Marble Quarrying.
Knoxville.	Unaka Soap Works.	Soap Factory.
Knoxville.	E. B. Stone.	Furniture Factory.
Knoxville.	Southern Car Works.	Enlarge Works.
Knoxville.	Cumberland Gap Mining	Mining, &c.
Knoxville.	& Mfg. Co.	Enlarge Plant.
Knoxville.	Knoxville Electric Light Co.	Increased Capital.
Knoxville.	Knoxville Ice Co.	Marble Quarrying.
Loudon.	Hood & Robinson.	Bricks.
Memphis.	Aldrich Sew'g Machine Co.	Sewing Machines.
Memphis.	Bartlett Hill Mfg. Co.	Manufacturing.
Memphis.	Williams & Co.	Planing Mill.
Memphis.	W. C. Bell.	Saw and Planing Mill.
Memphis.	Cochran & Co.	Improved Saw Mill.
Memphis.	D. H. Ball.	Shingle Machines.
Memphis.	E. L. Cochran & Co.	Box Fac'y & Plan'g Mill.
Memphis.	Renova Land, Lumber & Shingle Co.	Shingle Machinery Works.
Memphis.	Renova Land, Lumber & Shingle Co.	Shingle Factory.
Memphis.	National Mfg. Co.	Manufacturing.
Memphis.	Memphis Cotton Press & Storage Co.	Cotton Compress.
Memphis.	Willford Mfg. Co.	Bucket & Barrel Factory.
Memphis.	Memphis Mfg. & Brick Co.	Increase Capital.
Memphis.	J. H. Anthony.	Planing Mill.
Memphis.	Bartlett Mfg. Co.	Manufacturing.
Milan.	Ackerman.	Handle Factory.
Morristown.	Gregg Mfg. Co.	Enlarge Ag. Imp. Works.
Morristown.	Morristown Mfg. Co.	Brick Factory.
Morristown.	Merritt Milling Co.	Flour Mill.
Morristown.	Thompson-Houston Elect.	Electric Light Works.
Morristown.	Light Co.	Foundry.
Morristown.	Gregg Mfg. Co.	Brick Yard.
Murfreesboro.	Neely Bros.	Saw Mill.
Nashville.	Minnesota Mining Co.	Mining.
Nashville.	Laurel Hill Mfg. Co.	Mining and Mfg.
Nashville.	Charles Dunlap.	Planing Works.
Nashville.	Jenny El. Lt. & Power Co.	Electric Light Works.
Nashville.	Polar Refrigerator Co.	Annuaia Factory.
Nashville.	Davidson Motor Co.	Motor Cars, &c.
Nashville.	Nash. Roofing & Paving Co.	Roofing.
Nashville.	Enterprise Mfg. Co.	Manufacturing.
Nashville.	Geo. W. W. Sweeney.	Carriage Factory.
Nashville, West.	Nashville Lumber Co.	New Saw Mill &c.
Newmarket.	Newmarket Canning Co.	Cann'g Factory.
Newmarket, n'r. A. S. Miller.		Mill.
Piney Flats.	A. F. Willey.	Saw Mill.
Sevierville.	Sevierville Lumber Co.	Saw Mill.
Shelbyville.	Whitite & Sanders.	Enlarge Wagon Factory.
Smithville.	Dry Creek Silver Min. Co.	Mining.
Sparta.	Sparta Spoke & Handle Fcy Spoke & Handle Factory.	
Springfield.	Craighead.	Improved Flour Mill.
Springfield.	W. M. Menee.	Saw Mill.
Sumac.	Joseph Samuel.	Saw Mill.
Talbot.	Talbot Mill Co.	Flour Mill.
Thompson's Station.	J. C. W. Fenn.	Spoke & Handle Factory.
Trundle's X Rd Geo. N. Wade.		Flour Mill.
Union City.	Beck, Bransford & Ekall.	Electric Light.

## TEXAS.

Atlanta.	The Farmers' Alliance.	Flour Mill.
Austin.	Capital Lt. Power, Water & Heating Co.	Light and Power Plant.
Austin.	Rogers & Isherwood.	Cheese Factory.
Baird.	J. S. Foy.	Mill and Gin.
Beaumont.	Farmers' Alliance.	Saw Mill & Furn. Fact'y.
Bonham.	The City.	Water Works.
Bowie.	Frost.	Coal Mining.
Bowie.	J. H. Stephens.	Coal Mining.
Burnet.	Shannon & Edman.	Granite Cutting Mill.
Corsicana.	Corsicana Mfg. & Bot. Co.	Manufacturing, &c.
Corsicana.	Corsicana El. Lt. & Pow. Co.	Enlarge Electric Plant.
Corsicana.	Drane & Son.	Cora Mill.
Corsicana.	P. Vansteenburg.	Water Works.
Corsicana.	S. H. Grant.	Carriage Factory.
Dallas.	Henry Pollock.	Trunk Factory.
Dallas.	Dallas Electric Lt. & Water & Mfg. Co.	Electric Plant.
Dallas.	Northwest Texas Mining & Express Co.	Mining, &c.
Decatur.	Jack Co. Coal & Min. Co.	Mining, &c.
Dexter.	James Marshall.	Improved Flour Mill.
El Paso.	C. C. Fitzgerald.	Smelting Works.
El Paso.	C. C. Fitzgerald.	Coal Mining.
El Paso.	El Paso Town Co.	Water Works.
Fort Worth.	Spanish Moss Mfg. Co.	Horse Collar Factory.
Fort Worth.	Fort Worth Printing Co.	Printing, &c.
Gainesville.	Farmers' Alliance.	Flour Mill.
Galveston.	Galveston Soap & Mfg. Co.	Soap Factory.
Granbury.	Fort Worth & Rio Grande R. R. Co.	Quarry.
Granbury.	Granbury Stone Co.	Quarrying.
Hanney.	Pierce & Co.	Flour Mill.
Hackberry.	Hackberry Alli. Gin'g Co.	Ginery.
Hempstead.	Praise View Normal School.	Machine Shop.
Houston.	Henke Artesian Ice Co.	Ice Factory.
Houston.	Texas Artesian Well Co.	Water Works.
Houston.	Houston & Texas Central R. R. Co.	Enlarge Machine Shops.
Houston.	Rice & Dunbar.	Creamery.
Houston.	Ekhardt Bros.	Bravery.
Houston.	Houston Car Wheel Fdy. Co.	Car Wheel Works.
Hyatt.	J. & W. M. Riel.	Saw Mill.
Jacksonville.	McKell & Johnson.	Canning Factory.
Kyle.	Kyle Water Co.	Water Works.
Laredo.	A. L. McLane and others.	Electric Light Plant.
Longview.	Texas & New Mexico Min. & Milling Co.	Increase Capital.
Marshall.	McKell & Johnson.	Wood-Working Factory.
Marshall.	Marshall Car Wheel & Foundry Co.	Will Enlarge.
Marshall.	Farmers' Alliance Roller Mill Co.	Patent Nutlocks, &c.
Maysville.	Mill Co.	Flour Mill.
McKinney.	Collin County Milling Assn.	Flour Mill.
McKinney.	Collin Co. Alli. Mill. Assn.	Planing Mill.
Milano.	Milano Co-operative Assn.	Mill.
Paris.	Paris Water Co.	Water Works.
Pittsburg.	Paris Water Co.	Water Works.
Plank.	B. S. Fitzgerald.	Canning Factory.
Queen City.	Queen City Iron Works.	Planing Mill.
Rockland.	Kockland Lumber Co.	Saw Mill.
Rusk.	Old Alcades Iron Furnace.	Improved Furnace.
Sabine Pass.	Kansas City & Sabine Pk. Coal & Iron Co.	Mining, &c.
San Angelo.	Titus Machinery Co.	Mining, &c.
San Angelo.	T. O. Richards.	Electric Light Works.
San Antonio.	San Antonio & Aransas Pass R. R. Co.	Machine Shop.
San Antonio.	San Antonio Gas Co.	Electric Light Plant.
San Antonio.	Frank Teich.	Quarrying.
San Antonio, n'r. N.	Mackey & James Smith.	Brick and Pottery Works.
San Marcos.	Hays County Farmers' Alli.	Flour Mill.
Sherman, near.	Wm. Gardners.	Coal Mining.
Strawn.	Johnson Coal Mining Co.	Enlarge Mining.
Sulphur Springs.	J. N. Haney.	Flour Mill.
Sulphur Sp'gs.	Sulphur Springs Ice & Industry Co.	Ice Factory.
Sulphur Sp'gs.	G. W. Argenbright.	2 Mill.
Temple.	Bullock.	Water Works.
Texarkana.	Pullock Mining Co.	Mining.
Texarkana.	Texarkana Gas Light Co.	Gas Works.
Trion.	B. S. Fitzgerald.	Planing Mill.
Tyler.	Box & Barrel Factory.	Box and Barrel Factory.
Victoria.	Thomas O'Connor.	Artesian Wells.
Waco.	Texas Oil & Gas Co.	Natural Gas.
Weatherford.	Weatherford Water, Ice & Light Co.	Water Works.

## VIRGINIA.

Abingdon.	R. S. Lowry & Co.	Saw Mill.
Abingdon.	W. H. Barrow.	Cigar Factory.
Abingdon.	B. P. Morrison.	Spring Factory.
Alexandria.	American Mfg. & Pub. Co.	Medicines, Boxes, &c.
Alexandria.	National Mausoleum & Safe Deposit Co.	Safety Vaults.
Alleghany Sta.	John Calc.	Distillery.
Big Stone Gap.	South Atlantic Coal Co.	Coke Oven.
Big Stone Gap.	Connellsville Coke & Iron Co.	Coke Ovens.
Brown's Cove.	Jas. W. Early.	Grist Mill.
Buchanan.	Benj. F. McBreiden.	Canning Factory.
Buchanan.	H. E. Boyd.	Box Factory.
Buchanan, near.	Anderson Boone.	Canning Factory.
Burke's Mill.	J. B. Campbell.	Saw Mill.
Claremont.	Wm. G. Saylor.	Brick Yard.
Columbia.	Moreton Bros.	Shuttle Block Factory.
Crows.	Norfolk & Western R. R.	Machine Shops.
Danville.	W. N. Shelton.	Brick Yard.
Fauquier.	Fauquier & Walters.	Ore Mining.
Fincastle.	Oscar M. Bowyer.	Iron Foundry.
Fincastle.	J. T. Crush and others.	Canning Factory.
Fredericksbg.	Rappahannock Elect'c Lt. & Power Co.	Double Plant.
Graham.	Norfolk & Western R. R.	Machine Shops.
Green Forest.	B. C. Moomaw & Co.	Canning Factory.
Green Forest.	Wm. N. Seay.	Planing Mill.
Gum Spring.	Byron & Laid.	Grist Mill.
Lexington.	W. F. Maitland.	Cleaning Polish Factory.
Lexington.	Richmond Coal Mining & Mfg. Co.	Enlarge Coal Mining.
Loraine, near.	Mfg. Co.	Carriage Factory.
Lynchburg.	G. L. Scott & Co.	Organ Factory.
Lynchburg.	John W. Carroll.	Tobacco Factory.
Lynchburg.	McCorkle Bowman & Co.	Pork Packing House.
Lynchburg.	C. P. Poole.	Electric Light Works.
Lynchburg.	John N. Slicer & Co.	Canning Factory.
Madison Mills.	T. O. Gilliam & Co.	Remodel Flour Mill.
Manchester.	Manchester Fuel, Power & Lighting Co.	Gas Works.
Midlothian.	Midlothian Coal Mines.	Mining.
Mount Crawford.	James B. Campbell.	Saw Mill.
Newport News.	E. C. Hillier.	Iron and Brass Foundry.
Newport News.	E. C. Hillier.	Planing Mill.
Norfolk.	Canoke R. R. & Lum. Co.	Saw Mill, &c.
Norfolk.	Velline Mfg. Co.	Soap Factory.
Norwood.	Va. Nail & Iron Works Co.	Mining.
Old Hickory.	Vines & Rule.	Canning Factory.
Pearisburg.	James Witherspoon.	Ore Mining.
Portsmouth.	H. W. Brown.	Bucket and Pail Factory.
Pulaski City.	Hawkes.	Mining.
Rappahan'ck Station.	Geo. H. Lewis & Son.	Improved Flour Mill.
Richmond.	Weisiger Clothing Co.	Clothing Factory.
Richmond.	Gallego Flour Mills.	New Mill.

## WEST VIRGINIA.

Alaska.	Alaska Coal & Coke Co.	Coal Mining, &c.
Ansted.	Mill Creek Coal & Coke Co.	Coal Mining, &c.
Belington.	Geo. W. Curtin.	Saw Mill.
Belleville.	Belleville Mill Co.	Flour Mill.
Brookside.	Wm. Frush.	Flour Mill.
Buckhannon.	Hart & Griffith.	Flour Mill.
Buffalo.	R. T. Harvey.	Paint Mill.
Burlington.	Buffalo Lumber Co.	Saw Mill.
Byard.	Buffalo Lumber Co.	Lumber & Furn. Factory.
Charleston.	Henry Dilcher.	Sash and Door Factory.
Charleston.	Dry Branch Coal Co.	Coal Min'g, Coke Making.
Charleston.	Kanawha Improvement Co.	Coal Mining, &c.
Charleston.	Humbird Davis Crk. Coal Co.	Coal Mining, &c.
Charleston, n'r.	Geo. Straghan.	Coal Mine.
Clifton.	Hampton Fdy. & Mach. Co.	Store and Machine Works.
Davis.	H. G. Davis & Bro.	Coke Ovens.
Davis.	H. G. Davis & Bro.	Coal Mine.
Echo.	O. A. & W. F. Thayer.	Coal Mining.
Elizabeth, near.	B. McIntosh.	Saw Mill.
Graysville.	L. F. Gray & Son.	Improved Flour Mill.
Guyandotte.	Irvan Hartzell.	Woolen Mill.
Guyandotte.	Huntingdon Water Wks. Co.	Water Works.
Huntingdon.	Doyle & Co.	Machine Shop.
Huntingdon.	Ensign Mfg. Co.	Enlarging Foundry.
Huntingdon.	Ingram & O'Neill.	Machine Shops.
Jane Lew.	V. B. Fisher.	Flour Mill.
Martinsburg.	Berkley Corn Harvester Co.	Agricultural Implem't Fac.
New Cumberland.	John Porter.	Fire Brick Works.
Oak Hill.	Duncan & Hill.	Flour Mill.
Parkersburg.	Parkersburg Ice Co.	Ice Factory.
Ronceverte.	W. H. McClintic.	Flour Mill.
Ronceverte.	Meat Co.	Meat Packing.
St. Mary's.	The Timber Land & Mer. Co.	Saw Mill.
Thornton.	J. C. Painter & Bro.	Saw Mill.
Valley Falls.	John Bradshaw.	Flour Mill.
Wellsburg.	Gas City Oil & Gas Co.	Natural Gas.
Wheeling.	Wheeling Electrical Co.	New Plant.
Wheeling.	United States Oil Co.	Oil and Gas.
Wheeling.	Wheeling Pottery Co.	Enlarged Works.
Wheeling.	Tiltitown Pottery Co.	Pottery Works.
Wheeling.	Reymon Brewing Co.	Improved Brewery.
Wheeling.	C. H. Sawyer.	Base Ball Covers.
Wirt County.	M. B. McIntosh.	Saw Mill.

(Rebuilt or being rebuilt after being burned.)

\*Companies or firms in existence prior to Oct. 1, 1887, but since that time have either enlarged their works or built new works, or increased capital. In many of these cases given in this list, reference is made to entirely new works built by old firms.

## Building Canning Factories.

Some weeks since we told how the canning industry in Botetourt county, Va., starting a few years ago with one farmer canning his own fruits in his dwelling until gradually success enabled him to build a factory, had developed until there are now a dozen factories in operation in that county. Speaking of these twelve factories the Herald, of Fincastle, the county seat, says: If any of the twelve have failed to make money we have yet to hear of it. On the contrary, it is known that all the gentlemen engaged in the business made money, some of them making an exceedingly good thing of it, whilst the farmers and laborers around each establishment were greatly benefitted, the farmers by the cultivation of tomatoes and fruit, and the latter by receiving regular employment. The articles canned the past season consisted chiefly of tomatoes, sweet corn, peaches and apples." So successful has been this industry that nineteen new factories will be established the coming spring, making a total of 31 in that county. In building up such an extensive canning business Botetourt county has set an example that might be followed with great profit by hundreds of other Southern counties. Here is one county in no way superior to many others in all parts of the South, for raising vegetables and fruits, that has twelve successful canning factories in operation and nineteen more preparing to start up in the spring. This is a business in which there is little danger of overproduction so long as first class goods are canned and the work well done. The best grades of canned goods are meeting with an ever increasing demand, and the South annually consumes hundreds of thousands of dollars worth of canned goods purchased of other sections. Let the example of Botetourt county stimulate others. There is room for all.



# Tuskaloosa, Ala.

— \* ALABAMA'S NATURAL PITTSBURGH. \* —

**A Railroad and River Town of 6,000 Inhabitants, in the Coal, Iron and Timber District.**

Healthful Location. Salubrious Climate. School Facilities Unequaled by any other town in the South.

Centre of Education for the State. Seat of University of Alabama. Of State Insane Asylum. Of Alabama Central Female College. Hill's Female School. Fine Free School. Churches of all Denominations.

"EXAMINE THE MAP."

— + SITUATED ON +

**Queen & Crescent**

— TRUNK LINE, —

IN THE

**Warrior Coal Field**

AND ON THE

**WARRIOR RIVER.**

Only Navigable River touching the

**Alabama Mineral Field.**

Eight Months Navigation. Being Surveyed now to be opened all the year round.

All Water Navigation to

❖ **MOBILE** ❖

AND THE

**Entire Gulf and Atlantic Coasts.**

— THE —

**Tuskaloosa Northern Railroad**

Is now under construction into the

**MINERAL and TIMBER FIELDS.**

— THE —

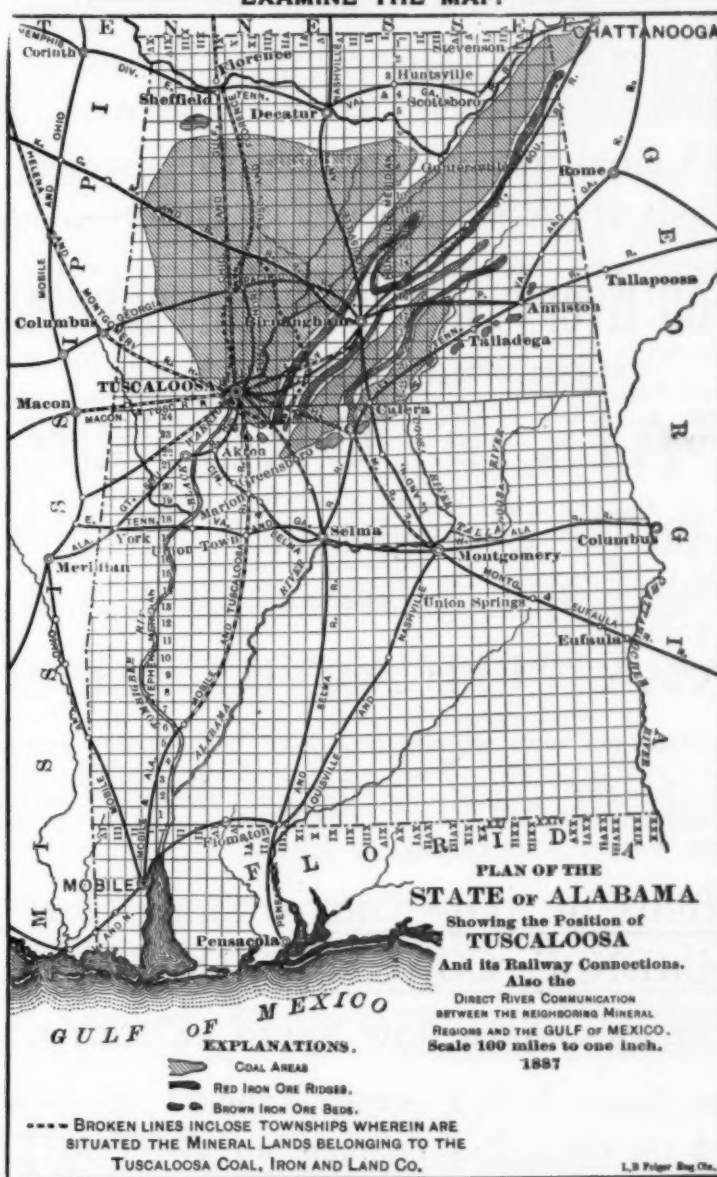
**Macon & Tuskaloosa Railroad**

Will soon be building into the

**COTTON REGION OF MISSISSIPPI.**

**Fine Farming Region**

Around and Below the City.



Superior Inducements

AND

+ ADVANTAGES +

TO ALL

Manufactories Consuming

**WOOD,  
IRON,  
COTTON.**

**FINE COOKING COAL**

In workable veins near city, fully tested.

◀ The Fire Clay ▶

Existing in inexhaustible quantities, has been practically tested and pronounced

The Best yet Discovered in the South.

Street Car and Dummy Lines

NOW BUILDING.

→ Water Works and Electric Lights ←

TO BE PUT IN AT ONCE.

**COTTON MILL**

In Successful Operation.

ALSO

**LARGE BRICK WORKS**

COTTON-SEED OIL MILL, &c.

Manufacturers Seeking Locations in the South have here

❖ **THE GOLDEN OPPORTUNITY.** ❖

Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

— ROOM FOR ALL. —

THE **Tuskaloosa Coal, Iron & Land Co.,**

Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers to locate at Tuskaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims.

An illustrated descriptive pamphlet sent free upon application to

**W. C. JEMISON,** President Tuskaloosa Coal, Iron & Land Co., **TUSKALOOSA, ALA.**



# Florence, Ala.

## County Seat of Lauderdale County.

At Head of Navigation on Tennessee River, and at Foot of Muscle Shoals Canal,  
which will be open Jan. 1st, 1888.

**SITUATED** on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

— The Scenery on Every Side is Picturesque and Beautiful. —

SO MUCH SO THAT IT IS CALLED BY VISITORS

— FAIR FLORENCE. —

There is no Place on the Continent more Healthful and Salubrious.

## MANUFACTURES.

Within the last six months numerous manufactures have been located here, among the number:

Five Large Blast Furnaces.  
One Rolling Mill,  
Three Planing Mills,

One Saw Mill,  
One Flour Mill,  
One Wooden-Ware Factory.

One Cotton Mill,  
One Cotton Compress and Ice  
Factory.

Two Brick Machines and  
Three Hand-Brick Yards.

There are VAST BEDS OF IRON ORE within a few miles North and  
IMMENSE COAL FIELDS SOUTH

**ACCESSIBLE BY RAILROADS NOW BEING RAPIDLY CONSTRUCTED.**

By the 1st of January the Nashville & Florence Railroad will be completed, making three lines of railroad, and the river, thus opening up **VAST AREAS OF TIMBER, IRON ORE, COAL, Marble, Limestone, Kaolin, Fire-Clay,** and almost every kind of mineral and product.

**THE LANDS IN THE SURROUNDING COUNTRY ARE FERTILE AND PRODUCTIVE.**

*All kinds of Grain, Grasses and Fruits grow to perfection. Springs and Water Courses are numerous, and grazing for Cattle is abundant for eight months of the year.*

Pamphlets and maps furnished on application to

# Florence Land, Mining & Manufacturing Company.



# GADSDEN, ALA.

Is situated on the West Bank of the COOSA RIVER, in the midst of the

## RICHEST IRON AND TIMBER SECTION

IN THE FAVORED STATE OF ALABAMA.

### ➤ The Gadsden Land and Improvement Company ➤

Own large tract of Eligibly Located Residence Property in the Most Desirable Part of the City, and have fine location on river and railroad for

#### MANUFACTURING ESTABLISHMENTS,

And are offering great inducements to manufacturers to locate their plants in this *FAVORED LOCALITY*. No place in the South has such *Wonderful Advantages*. Situated in the midst of the *RICHEST IRON SECTION* in the *STATE*, at the foot of Lookout Mountain on the banks of a Navigable River, (*THE BEAUTIFUL COOSA*), surrounded by Forests of the Finest Timber on the Continent, with Fine Building and Fire Clay, and the *FINEST BUILDING STONE* all around us, with

**Uninterrupted Health, and the Purest and Best Water and Finest Drainage of any City in the State,**

**Gadsden should become the Greatest Manufacturing Center of Alabama.**

**T**HE Alabama Great Southern, Rome & Decatur, Tennessee & Coosa, Anniston & Cincinnati Railroads, with the ever-flowing Coosa navigable the year round, gives us as *FINE TRANSPORTATION FACILITIES* as any other city enjoys.

**We now have Railroad Car Works, Furnaces, Foundry and Machine Works, Saw Mills, Sash, Door and Blind Factory, Furniture Factory, Ice Factory, Paint Mills, Grist and Flouring Mills, Cotton Ginnery, Fine System of Water Works, Electric Lights, Telephone Communication over City, and also to neighboring cities Atlanta and Rome, Ga.**

**WE WANT** Rolling Mills, Bridge and Bolt Works, Cotton Factories, Woolen Mills, Furniture Factories, in fact all kinds of Factories, even Coffin Factories, (but we want to ship the Coffins to some of the other booming cities.)

Liberal Grants of Land will be made by THE GADSDEN LAND AND IMPROVEMENT CO. to any of the above-named industries.

FOR FURTHER PARTICULARS ADDRESS

**M. L. FOSTER, Sec. & Treas.**

**THE GADSDEN LAND & IMPROVEMENT CO. - - GADSDEN, ALA.**

POST-OFFICE BOX 146,



# ANNISTON, ALA.

## "The Model City of the South."

**T**HERE is no healthier or more charming place of residence in America than Anniston; built on the slope of one of the highest of the chain of the Blue Ridge in Alabama, it commands scenery that is unapproachable in the State. Nature could not have formed a more beautiful place for man to build a city or given greater natural advantages. The natural drainage is most thorough and complete, while in addition the city is preparing a system of underground sewerage. *A more delightful and invigorating climate cannot be found anywhere:* mild in winter, cool in summer, a thousand feet above the Gulf, with the high and broken chain, range after range in the east, Blue Mountain in the north, Coldwater Mountain in the southwest, make Anniston the *coolest, healthiest and most attractive of any city in the South.* It has the richest agricultural country surrounding and tributary to it in the State, to support a manufacturing and mercantile population. The mountain sides will grow the grape and every kind of large and small fruit to perfection, and the valleys every product of diversified farming. *It is in the heart of the richest mineral district of the South,* and commands the great fields of brown hematite ores on which the great and successful manufacture of iron must in the end depend for quality and profit in every branch of most skillful and best manufactures of iron and steel. It has tributary to it *the best and most extensive pine forests in North Alabama,* that are reached by roads owned and controlled by Anniston citizens, while it has secured to its industries the very best coal mines and coking coal in Alabama. There is no city in America, in proportion to population, that has the manufactures of Anniston, or employs as many working men, or does a larger mercantile business. The industries already in full and profitable operation in Anniston are the **two Woodstock Furnaces** producing six hundred tons of Standard Car Wheel and Malleable Iron per week, and the **two Clifton Furnaces**, tributary to Anniston, producing nearly as much more. **The Car Works** are fully employed turning out forty cars per week, and are introducing new machinery and larger engines to increase their capacity to twenty cars per day. **The Rolling Mill and Car Wheel Foundry and Steam Forge** are among the largest in the South, of a capacity of two hundred wheels, a consumption of 120,000 pounds of metal per day, exclusive of the Rolling Mill and Steam Forge. These works are being enlarged to meet the increasing demands upon them. **The Cotton Factory** is one of the largest in the South, containing 11,700 spindles, and is running to its full capacity, while the foundry of **Murray & Stevenson**, and machine shop of **Pindar & Co.**, and planing mills of **Miller & Smith** and **Farrar & Co.** employ a large number of men and are crowded with work. The new industries that are now under way and provided for will within the next twelve months **Add Four Thousand Additional Working Men to Anniston's Population.** Two of the **Largest Iron Furnaces in the South**, capable of producing two thousand tons of iron per week, are progressing rapidly, and one of the **Largest and most complete Pipe Foundries in the world** for the production of Gas and Water Pipe is under construction,—it will employ nine hundred men.



NOBLE STREET—ANNISTON.

The **Steel Bloomery**, for the production of Steel Blooms, is nearly completed, and the new **Fire-Brick Works of Taylor & Sons** are in operation. The **Ninety-Inch Morse Cotton Compress**, with its warehouses, has been completed, and is receiving cotton. Forty thousand bales, it is estimated, will be secured to Anniston from the territory that its system of railroads have opened up. The completion of the **Anniston & Cincinnati Railroad** during the present year, that will be owned and controlled by Anniston's citizens, opens up new territory and forms a **New and Shorter Grand Trunk Line to Cincinnati and the great Northwest, and to the Southwest via New Orleans and Shreveport.**

It is only the profits of business and labor that can add to the wealth of a community, add to or maintain the value of real estate, and add to the prosperity of its people. Having this in view, every industry and business in Anniston is established on a *profitable* basis. All its merchants are doing a large and profitable business, far larger than they prepared for or anticipated; it is the same with the manufacturers, while *not a dollar of debt has been created*, either by issue of a bond or placing of a mortgage on any of its old or new industries, leaving their earnings free from fixed charges that must be paid in times of depression as well as of prosperity. *To the investor, either in business, manufacturing or real estate, nowhere else are presented opportunities as safe, secure and certain as at Anniston, or where they can rest on as healthy and solid foundation.* It has trunk line railroad communication with all parts of the United States, and freight rates with the most favored of Southern cities. Two lines of railroads are owned and controlled in the interest of Anniston by its own citizens. *It has the best system of Water Works,* with the purest well water from three hundred feet below the surface, drawn from white quartz sand and gravel, and distributed through the city, with a pressure of 100 pounds to the inch, from a reservoir always full, protecting the city against fire and giving it the lowest rate of insurance. *The city is practically free from debt, and taxation limited to one-half of one per cent.* The means for education are the very best. Public Schools of a high grade are provided. One of the finest and best institutes for Young Ladies has been opened, and a College for Boys and Young Men, to which a School of Technology and Chemical Assay Laboratory have been added, is now nearly completed, and the best of teachers and professors secured for both. There are Churches for all denominations, and Hotel Accommodations that are not surpassed in Europe or America. The **ANNISTON INN** provides the quiet and comfort of the most luxurious home. The streets are wide, macadamized, and rolled hard and smooth for pleasant drives. STREET CARS AND DUMMY LINES are being built to different parts of the city, and the **ELECTRIC LIGHT** service enlarged and improved, leaving nothing undone to promote the comfort of its citizens and maintain and increase the value of their property and profits of their business.

The **Anniston City Land Company**, or the **Bureau of Information**, will give any information desired when applied to, and invite all wishing a charming place in which to live, to do business or to make profitable investments, to visit

©ANNISTON.©



# CONSTRUCTION DEPARTMENT

**WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.**

## ALABAMA.

**Anniston.**—It is reported that the Vale Royal Manufacturing Co., of Savannah, Ga., have contracted to build a large number of houses for the company lately mentioned as organized by the Anniston City Land Co. to build houses.

**Anniston.**—M. B. Wellborn will sink a shaft at his mines.

**Anniston.**—The Anniston Ice Manufacturing Co. will hold the meeting to increase their capital stock on January 20.

**Anniston.**—Noble Bros. & Co., whose car wheel works, rolling mill and machine shops will be a part of the \$1,000,000 car works plant lately reported as to be established by the United States Rolling Stock Co., of New York, will, it is stated, build large foundry and machine works about the size of their present plant.

**Anniston.**—Plans have been prepared for the church to be erected corner 14th street and Leighton avenue by the Methodists. Rev. C. L. Mann can give particulars.

**Birmingham.**—The contract for improving the county roads has been let to M. G. Kennedy at \$38,927.70, provided bond is furnished.

**Birmingham.**—Electric light machinery is being put in the Alabama Rolling Mills.

**Birmingham.**—The Sloss Iron & Steel Co. are erecting a large new Reynolds-Corliss engine.

**Birmingham.**—The output of the limestone quarries at Gate City will be greatly increased.

**Birmingham.**—The Tennessee Coal & Iron Co., T. T. Hillman, vice-president, are making efforts to have located at Ensley the branch car works which the Pullman Palace Car Co., of Chicago, Ill., are reported as contemplating building in the South.

**Calera.**—A furniture factory is reported to be started at South Calera.

**Coatopa.**—J. B. Patton & Bro. have erected the mill and gin referred to last week.

**Coosa County.**—W. T. Black will probably develop a gold mine.

**Cross Plains.**—The East & West Railroad Co. will spend \$160,000 in making improvements, purchasing new rolling stock, &c.

**Cullman.**—It is rumored that the Decatur Pressed Brick Co., of Decatur, will establish works at Cullman.

**Cullman.**—Mr. Smith, of Columbia, Tenn., has purchased the flour mill of Joseph Gerver and will put it in operation.

**Decatur.**—J. M. Pierson, representing a shoe manufacturing company of Lynn, Mass., is reported as making investigations in regard to starting a shoe factory.

**Decatur.**—M. S. Higbie, representing the Middlesex Co., of South Amboy, N. J., is making investigations with a view to establishing terra cotta works.

**Decatur.**—The Memphis & Charleston Railroad Co. have secured machinery for the elevator reported last week, but will probably not begin work before spring.

**Decatur.**—The Fairview Dummy Street Railroad Co., capital stock \$30,000, has been chartered by P. H. Flynn, L. B. Wyatt, W. G. Skillman, W. P. Guthrie, John Blair and others.

**Decatur.**—The Decatur Mineral & Land Co. will make extensive improvements during the coming year.

**Fort Deposit.**—An armory will be erected for the Fort Deposit Rifles. Silas Tyson can give particulars.

**Gadsden.**—Plans and estimates will be prepared for the sewerage system previously reported. The mayor can give information.

**Huntsville.**—The iron furnace reported last week as to be built by the Huntsville Land, Improvement & Manufacturing Co. will not be erected by them, but by a syndicate of New York and Philadelphia capitalists. The capacity will be 100 tons daily, and work will be commenced early in the spring. Their representative, W. L. Cresson, can give particulars.

**Mobile.**—The Gulf Coal & Coke Co. have sold their coal and iron ore lands in Walker county to the Gulf Coke & Coal Co. Joseph W. Burke is president of the new company, and Adam Glass, secretary.

**Montgomery.**—A. D. Mills contemplates adding to his sash, door and blind factory the manufacture of curtain poles, broom and other handles, &c., and wants prices on necessary machinery.

**Montgomery.**—The Montgomery Manufacturing & Industrial Aid Association, capital stock \$1,000,000, will be formed to encourage and aid in the starting of manufacturing.

**Selma.**—The Standard Oil Co. will build an oil warehouse.

**Selma.**—A large manufactory is to be established soon.

**Sheffield.**—The Sheffield Hotel Co. have let the contract for the foundation of their hotel, previously reported, to Beegle & Baldwin, of Tusculumbia.

**Sylacauga.**—A \$4,000 brick school-house is reported to be built by Mr. Samuel Noble, of Anniston.

**Sylacauga.**—A flour mill, steam ginnery, &c., will be erected by Lewis & Co.

**Sylacauga.**—Samuel Noble, of Anniston; B. K. Collier, of Montgomery, and George A. Hill, of Talladega county, have purchased 350 acres of land in Sylacauga. They will develop iron ore mines, marble quarries, &c. An iron furnace may be erected.

**Talladega.**—Dumas & Clark contemplate starting a shoe factory and a jeans pants factory.

**Talladega.**—Stringer & Jackson will build a large warehouse.

**Troy.**—An electric light plant is reported to be erected. J. M. Henry can probably give information if true.

**Trussville.**—It is reported that Robert Hogsett, of Uniontown, Pa., interested in the Birmingham Furnace & Manufacturing Co., who are building two iron furnaces, and others are making arrangements to build a manufacturing town at or near Trussville.

**Warrior Station.**—The Warrior Printing Co., capital stock \$2,500, has been chartered by L. C. Harrison, W. A. White and L. C. Davidson.

## ARKANSAS.

**Antimony City.**—The United States Antimony Co., previously reported, expect to spend probably \$300,000 in enlarging their plant and operations during next year.

**Arkadelphia.**—Subscriptions are being raised towards organizing a company to build a cotton factory.

**Beebe.**—Cyrus Heller, lately reported as opening a marl mine, will shortly put in some new machinery.

**Cunningham.**—J. P. Cunningham & Co., reported last week as to start a hub, spoke and felloe factory, contemplate erecting machinery to manufacture wagon supplies.

**Fort Smith.**—The stock company referred to last week will be, if formed, for the purpose of building a new cotton mill to cost from \$200,000 to \$300,000, and not for the purpose of putting an old mill in operation.

**Helena.**—J. H. Andrews, representing the Van Depoele Electric Manufacturing Co., of Chicago, Ill., has formed a \$25,000 stock company to erect a plant.

**Hot Springs.**—A new elevator will be put in at the New Waverly Mine.

**Hot Springs.**—Sithen & Dow have purchased the Schultze Lumber Mill and will repair it and put in \$1,000 of new machinery.

**Lilly.**—J. W. Doan, of Chicago, Ill., has purchased a saw mill and timber lands.

## FLORIDA.

**Anthony.**—C. C. Priest is adding a saw mill to his grist mill.

**Apalachicola.**—It is rumored that one or more saw mills will be moved to Apalachicola.

**Jacksonville.**—Alonzo R. Jones will erect a two-story brick building, 50x104 feet, to cost about \$6,000.

**Jacksonville.**—The contract for the brick work of the jail, lately reported, has been let to W. A. McDuff at \$6,350, and the contract for the iron work to the Merrill-Stevens Engineering Co. at \$12,471.41.

**Naples.**—It is reported that the Naples Co. will build a 45-room hotel and several cottages.

**Orlando.**—A meeting will be held shortly to organize a company to cultivate and manufacture tobacco.

**Orlando.**—The Orlando Street Railroad Co. will extend their lines.

**St. Andrew's Bay.**—It is stated that a saw and shingle mill and a sash, door and blind factory will be built on Watson's bayou, four miles from St. Andrew's Bay.

**St. Augustine.**—Plans have been prepared for the temporary courthouse lately reported to be erected at a cost of \$6,000, and bids will shortly be wanted. B. Oliveros can give particulars.

## GEORGIA.

**Albany.**—A guano factory and a barrel factory are to be established soon. McIntosh & Davis can probably give information.

**Albany.**—Wells & Geise, of Brownwood, have lately erected a saw mill and will probably soon add a planing mill.

**Albany.**—The hotel reported last week as to be built by Mrs. Z. T. May will cost from \$15,000 to \$20,000.

**Albany.**—Tarver & Co. have contracted to furnish cross-ties for part of the Columbus Southern Railroad. The Chattahoochee Brick Co., of Atlanta, have sublet the contract for building the road from Albany to Dawson to a party from Denver, Col.

**Atlanta.**—The Franklin Hospital Association, capital stock \$25,000, has been chartered by S. M. Iman, J. P. Logan, W. F. Westmoreland and others. Will establish a hospital.

**Atlanta.**—C. J. Brown and Charles J. Morse are interested in the Atlanta Brick Co. reported last week as chartered with a capital stock of \$25,000.

**Atlanta.**—J. W. Cooper and others have incorporated the Atlanta Piano Forte Manufacturing Co., capital stock \$200,000, to erect the factory previously reported.

**Atlanta.**—The Atlanta Street Railroad Co. have purchased the Ponce de Leon Springs and 30 acres adjoining, and will make improvements.

**Cave Spring.**—New iron ore banks have been opened by the Woodstock Iron Co., of Anniston, Ala.

**Dalton.**—An iron ore mine near Dalton is being tested and will be developed if tests prove satisfactory.

**Dalton.**—The Crown Cotton Mills have sold 70 acres of land to Philadelphia (Pa.) parties represented by Robert Monley, who will build the architectural iron works lately mentioned.

**Dublin.**—Laurens county has decided to issue the \$15,000 of bonds to build the bridge across the Oconee river previously reported.

**Macon.**—A stock company is being formed to build an ice factory.

**Newnan.**—The \$100,000 stock company lately mentioned as being formed to build a cotton factory have temporarily organized with R. D. Cole, Sr. as president, and L. P. Barnes as secretary. A committee has been appointed to select a site and work is to be commenced about March.

**Reynolds.**—D. T. Montford and Gordon & Carson will each start a fertilizer factory.

**Rossville.**—Mr. Case will move his saw mill to Rossville and will, it is said, add a planing mill.

**Royston.**—J. S. Campbell has rebuilt his saw mill previously reported as burned.

**Savannah.**—The Tybee Beach Improvement Co. expect to soon begin work on their hotel at Tybee Beach, previously reported.

**Thomasville.**—The Union Iron Works Co., of Chattanooga, Tenn., have received the contract to build an iron standpipe to replace the one recently wrecked. It is to be 25x100 feet and will cost \$11,000.

**Thomasville.**—The Waverly Hotel, owned by S. A. Peters, reported in this issue as burned will be rebuilt.

**Tilton.**—G. B. Woodworth will rebuild his saw mill reported last week as damaged by a boiler explosion.

**Vienna.**—Mr. Carnes will remove his lumber mill to near Vienna.

## KENTUCKY.

**Ashland.**—Chauncey E. Kendall, Leroy S. Lewis and Frank J. Washburn have chartered the Consolidated Fire Extinguisher Co., capital stock \$100,000, to manufacture and sell fire extinguishers, chemical engines, &c.

**Catlettsburg.**—The Mesia System Gold Mining Co. has been chartered with Gabriel Ruiz, H. N. Huiseng, Justus C. Hall, Arturo Cuyas and Philip G. Cusachs, of New York, as directors. The authorized capital stock is \$1,000,000. The company's operations will be principally in Idaho and Dakota.

**Covington.**—The Crawford Mill Co., capital stock \$10,000, has been incorporated by Frank Pullman, George T. Crawford and John Hanks.

**Enterprise (P. O. Jamison).**—George H. Nesbitt, Frederick C. Percival and William Dickore have incorporated the Kentucky Clay & Mining Co., capital stock \$100,000, to mine clay and other minerals.

**Henderson.**—A 1,000,000 gallon pump will be put in the Henderson Water Works. Bids will be received until February 1 by Frederick Kleiderer.

**Louisville.**—The Florida City Land & Improvement Co. has been incorporated to deal in land in Florida, &c., by J. Montgomery Hunter, R. P. Gregory and Charles E. Lemmon. The authorized capital stock is \$500,000.



Lexington.—The Catholics will erect a school building.

Louisville.—The Knights of Pythias contemplate erecting a hall to cost not less than \$125,000, and will organize a company for that purpose. J. W. Durham can give particulars.

Pineville.—A company is being organized to build a street railroad. The Pine Mountain Iron & Coal Co. can give information.

Stanford.—A planing mill has lately been erected.

#### LOUISIANA.

New Orleans.—A. W. Klapper will establish a steam sausage factory at 14 Sorapuru street.

New Orleans.—The Lafayette Brewing Co., capital stock \$150,000, has been incorporated with Henry Lochte as president; Joseph Fabacher, vice president; Celestin J. Bernard, secretary, and William G. Murtagh, treasurer.

#### MARYLAND.

Baltimore.—The Baltimore Incandescent Gaslight Co., capital stock \$50,000, has been incorporated by George W. Lynch and David Z. Evans, of Philadelphia, Pa., and James K. Hunter, James Hutchinson and William Sinclair, of Baltimore. The present office of the company is at 608 Spring Garden street, Philadelphia, Pa.

Baltimore.—Rose & Mason, Howard and Franklin streets, will put in a 10 horse power boiler and engine. Charles G. Kriel, butcher, 5 Henrietta street, will put in a 80 horse power boiler.

Baltimore.—A hospital to cost about \$50,000 will be built on Calvert street near Saratoga. Thomas M. Lanahan can probably give particulars.

Calverton (P. O. Baltimore).—Chas. G. Rohr & Son will rebuild their slaughterhouse, reported in this issue as burned.

Hagerstown.—The Standard Broom Works and the Antietam Hosiery Mills have, it is reported, been enlarged.

Hagerstown.—It is stated that the Excelsior Hosiery Co. have increased the capacity of their factory.

Hagerstown.—The United Silk Manufacturing Co. have quadrupled their capital and are putting in additional machinery. They intend to add to their weaving and winding business, throwing and silk finishing departments, and probably a dyeing establishment.

Hagerstown.—Emmert Bros. have completed their new roller flour mill.

Unionville.—A creamery is being erected by E. D. Danner, of Unionville, and B. O. Frizzell, of Catonsville.

Washington, D. C.—Francis Mejasky will erect three brick dwellings on Blake street to cost \$10,000.

Washington, D. C.—A bill has been introduced in the Senate to incorporate the Capital Rapid Transit Street Railroad Co., with George B. Loring, George L. Ordway and others as corporators.

Washington, D. C.—The Great Falls Electric & Power Co. has been incorporated to develop the water power of the Great Falls.

Webster.—A canning factory is being erected by Earl & Hopper.

#### MISSISSIPPI.

Meridian.—Lacy & Norwell have contracted to build part of the Warrior Coal Fields Railroad.

Moss Point.—C. T. Irving & Co. will manufacture sawed cypress shingles.

Vicksburg.—The Vicksburg Spoke Works and Ginnery, reported in this issue as burned, will be rebuilt at once.

#### NORTH CAROLINA.

Charleston.—The Mid-Mountain Land & Mining Co., reported last week, has a capital stock of \$50,000, which will be increased to \$200,000. Will develop mineral and timber lands.

John Millar and F. B. Sims, of Sheffield, Ala., are interested.

Craven County.—A saw mill is being erected on Hancock creek.

Durham.—Fertilizer works will not be built as reported last week. A \$60,000 stock company has been formed to operate the present works. S. T. Morgan is president. J. S. Carr, vice-president, and L. A. Carr, of Baltimore, Md., secretary and treasurer.

Durham.—The Durham Sash, Door & Blind Factory has lately been incorporated with a capital stock of \$20,000. W. F. Remington is president.

Fayetteville.—It is probable that works to manufacture kaolin will be started at some point along the Cape Fear & Yadkin Valley Railroad. W. B. Phillips, Raleigh, can probably give information when anything is done.

Franklin.—H. G. Lutter will add some machinery to his planing mill.

Lincolnton.—John Rudisill has added some new machinery to his flour mill on Indian creek.

Lincolnton.—A meeting will be held on January 10 to form a company to build a roller flour mill.

Marion.—P. P. Dickerson has the contract to build part of the Charleston, Cincinnati & Chicago Railroad, and has sub-let eight miles.

New Berne.—The Jarman Ice Factory contemplate starting a soap factory to work up cotton-seed oil, and solicit correspondence with manufacturers of machinery.

Rockingham.—T. B. & J. S. Ledbetter have not added any machinery to their yarn mill as lately reported.

Salisbury.—The capital stock of the Sapona Cotton Mills, reported last week, will be \$50,000. R. J. Holmes can give particulars.

Salisbury.—The Salisbury Cotton Mills, lately mentioned as to erect a mill, have organized with J. M. Odell, of Concord, as president; S. Wiley, vice-president, and F. J. Murdoch, secretary and treasurer.

Shelby.—Samuel Dunnivant has contracted to build part of the Charleston, Cincinnati & Chicago Railroad.

Tarboro.—The name of the company recently reported as formed to build a cotton-seed oil mill is the Farmers' Cooperative Manufacturing Co. The capital stock is \$25,000. L. L. Staton is president, and E. V. Zoeller, secretary and treasurer. The company will build the mill reported last week as to be erected at Shiloh. The daily capacity will be 20 tons. Will purchase machinery at once.

Tunnel.—A kaolin factory is being erected. T. A. Carpenter can probably give information.

#### SOUTH CAROLINA.

Centerville.—J. B. Dodd has started the manufacture of wagons.

Eutawville.—The Eutawville Railroad Co. have let the contract to build the bridge across the Santee river and the trestling through the Santee swamp to S. J. Pregnall. Contracts for grading will soon be let.

Georgetown.—E. J. Schmidz will probably contract to sink an artesian well.

Jamison.—T. P. Horger has rebuilt his saw mill reported last week as burned, and will soon rebuild his grist mill and gin.

Pickens.—F. C. Parsons, previously reported as having his gin burned, will rebuild next spring.

Winnsboro.—A cotton factory is again being agitated.

#### TENNESSEE.

Athens.—McDonald, Shea & Co., of Knoxville, have contracted to build 20 miles of the Athens & Tellico Railroad.

Bristol.—Slate and marble quarries about 5 miles from Bristol are being developed by J. A. Dickey.

Campbell's Station (P. O. Fountain Creek).—The stone quarry on the land of L. G. Fleming, lately referred to, is being developed by Reilly Bros.

Chattanooga.—It is rumored that the Brush Electric Light Co. will move their plant to another location and enlarge it.

Chattanooga.—A brick hospital is to be erected at a cost of \$4,000. C. C. Howard can give information.

Chattanooga.—The Chattanooga Furnace Co. are relining and improving their furnace.

Chattanooga.—Morrison & Woodward are putting some new machinery in their planing mill.

Chattanooga.—The Rossville & Chickamauga Street Railway Co. have received permit to build their street railroad previously reported.

Chattanooga.—R. C. Hutchinson and others, previously reported as to build glass works, have incorporated as the Chattanooga Glass Works. Their capital stock will be \$100,000.

Chattanooga.—The North East Land Co. has been organized with C. W. Vinson as president.

Coopertown.—A stock company will probably be formed to rebuild the flour mill of F. M. Watt, reported in this issue as burned.

Covington.—The Covington Industrial Manufacturing Co. is being organized to start several factories. A hub and spoke factory will be started first. The capital stock will be \$100,000.

Covington.—J. M. Young, L. Hill, Jr., W. N. White, Charles H. Hill and J. P. O'Neal have incorporated a company to erect a cotton compress. The capital stock is \$20,000.

Dayton.—George Leggate, lately mentioned as to put the Dayton Roller Mills (flour) in operation, has repaired and improved them. Their daily capacity is 125 barrels.

Gallatin.—J. C. Rodemer has contracted to build 22 miles of railroad between Cookeville and Pavey Fork.

Gallatin.—The Gallatin Land & Lumber Co. have received a contract for 40,000 railroad ties.

Henryville.—It is reported that a company will be formed to develop coal lands. If true, W. P. Warren can give information.

Kingston.—There is talk of a railroad being built from Kingston to Emory Gap.

Knoxville.—Mr. Du Bois, of the Proctor Leather Co., of Boston, Mass., has, it is reported, been prospecting with a view to establishing a tannery.

Knoxville.—Reps Jones has contracted to build four sections of the Knoxville Southern Railroad.

Knoxville.—W. J. Savage & Co., millwrights and pattern makers, are building a new shop, two stories, 40x50 feet.

Knoxville.—Martin J. Condon, W. P. Chamberlain, H. H. Ingersoll, M. L. Ross, A. A. Arthur, J. Allen Smith and J. M. Smith have incorporated a company to erect an electric light plant.

Maryville.—A marble quarry has been leased and will be developed.

Milan.—J. W. Coulter will erect a 40-barrel roller flour mill.

Morristown.—The Merritt Milling Co., lately mentioned as to build a flour mill, have organized with C. D. Merritt as president and general manager; R. B. Lloyd, vice-president, and J. N. Fisher, secretary and treasurer. They have bought the Loop planing mill property.

Morristown.—It is rumored that an iron furnace is to be built. If true, the mayor can probably give information.

Morristown.—The name of the company lately reported as formed to erect an electric light plant is the Morristown Electric Light Co. The Thompson-Houston system will be used.

Morristown.—An ice factory is projected. Mossy Creek.—W. S. Sizer will not organize a stock company to manufacture wagons as reported last week.

Nashville.—The capital stock of the Davidson Motor Co., lately reported as chartered to manufacture motors, &c., by O. E. Davidson and others, is \$100,000. It will shortly be increased to \$600,000. Will build works soon.

South Pittsburg.—W. B. Dummwright, of Murfreesboro, will start a brick-yard next spring.

Washington.—A saw mill is being erected by Mr. Hall.

Winchester.—The Tennessee Wheel Co., capital stock \$50,000, has been chartered at Albion, N. Y., and will erect the wheel factory referred to last week. They will buy a two-story building, 100x150 feet, and put in machinery with a daily capacity of 100 sets of wheels per day.

#### TEXAS.

Austin.—The Austin & McGregor Railroad Co., lately reported, have organized with Joseph Nalle as president, Emzey Taylor, Georgetown, vice-president, and A. P. Wooldridge, secretary and treasurer.

Burnet.—G. W. Angle & Co. are prospecting for coal lands.

Burnet.—The American Well Boring Co., of Louisville, Ky., have contracted to sink an artesian well. The city council will issue \$5,000 of bonds.

Dallas.—The Electric Light, Power & Manufacturing Co., lately mentioned as chartered, have purchased the plant of the Texas Electric Light & Manufacturing Co. and will enlarge it.

Dallas.—W. H. Gaston, R. V. Tompkins, D. A. Poyner and Benjamin N. Bryant have incorporated the Texas Brick & Tile Co., capital stock \$50,000, to manufacture fire brick, tiles, terra cotta, &c., mine coal, &c.

Dallas.—The Tabor Bros. Jewelry Co., capital stock \$25,000, has been chartered by John C. B. Tabor and others.

Galveston.—Adoue & Lobit, Charles Fowler, E. E. Parker and W. C. Ansell, of Galveston, and Addison, Gage & Co., of Boston, Mass., have incorporated the Texas Ice & Cold Storage Co., capital stock \$100,000. They have contracted for machinery to erect a 30-ton ice factory and a cold storage warehouse with a capacity of 20 car-loads; also for an artesian well.

Georgetown.—The San Gabriel Hotel Co., capital stock \$50,000, has been organized to build a three-story hotel, 75x126 feet, with Emzey Taylor as president, J. L. Rucker, vice-president; J. E. Cooper, secretary, and H. Harrell treasurer. The contract has been let to Whittle & Harrell and George Irvine.

Houston.—The Houston & Texas Central Railroad Co. have let the contract for the brick and sewer work of their roundhouse, lately mentioned, to James Cahill, and the carpenter work to J. M. Mather.

Jacksboro.—It is stated that about 5,000 acres of coal lands in Jack county have been purchased by English parties.

Jacksonville.—W. H. Lovelady is president, and J. L. Douglas, secretary, of the \$5,000 company lately reported as formed to start a canning factory.

Mexia.—A canning factory is to be started. J. W. Stubenrauch can give information.

Miami (P. O. Easom).—A party is negotiating to build a \$10,000 hotel.

San Antonio.—The Farmers' Alliance will build warehouses, stock-yards, &c. W. A. Jones can give particulars.

Seven Oaks.—C. N. Fisher will rebuild on a larger scale his saw mill lately reported as wrecked by a boiler explosion. The capacity will be 50 M feet daily.



Trickham.—Parties are prospecting for oil on the land of L. L. Shields.

Waxahachie.—The name of the company reported last week as being organized to erect an electric light plant is the Waxahachie Electric Light, Power & Water Co. The capital stock is \$50,000. Will put in a plant with a capacity of 250 incandescent lights and 15 arc lights.

Waxahachie.—The Waxahachie Street Railway Co., previously reported, will begin work on their road as soon as permit can be secured.

Woodville.—A brick-yard has lately been started by Votow, Ganchan & Davis.

#### VIRGINIA.

Fincastle.—Canning factories are to be started in Botetourt county by F. L. Smiley, A. T. Boze, Depon & Humbert, Samuel Shaver, S. C. Showalter, J. J. Feather, T. P. Goodwin, S. P. Rader, Rufus Brugh, George Graybill, Thrasher, Craft & Co., W. Williams & Bros., Austin & Bros., and Benjamin Niniger.

Golansville.—S. W. Allen will rebuild his saw mill reported last week as wrecked by a boiler explosion, and wants machinery for an 18 horse-power mill.

Kent's Mills.—The Kent's Mills (flour and woolen) have been sold to Harman Newberry for \$17,025.

Liberty.—Several canning factories are reported to be started soon.

Lynchburg.—A. T. Leftwich, of Baltimore, Md., has erected a new leaf tobacco factory to be occupied by Leftwich, King & Co. It is five stories, 45x132 feet.

Norfolk.—C. Brooks Johnston, operating the Norfolk Knitting & Cotton Mills, is negotiating for machinery to increase capacity.

Petersburg.—The Norfolk & Western Railroad Co., (office, Roanoke) contemplate erecting a grain elevator and making other improvements.

Petersburg.—John C. Griffin has purchased stone quarry lands about 8 miles from Petersburg, and contemplates soon developing.

Petersburg.—George L. Bernard is organizing a stock company to develop his stone quarry.

Pulaski City.—The rumor referred to last week that John W. Robinson, of Graham's Forge, will build a charcoal iron furnace is not true.

Raphine.—A foundry and machine shop is to be built. James E. A. Gibbs can probably give information.

Richmond.—There is talk of a \$250,000 stock company being formed to build a large hotel.

Richmond.—Bills have been introduced in the legislature to incorporate the Virginia & Pennsylvania Coal & Iron Co.; the Abingdon Street Railroad Co.; the Norfolk & Cape Henry Railroad & Hotel Co., and the Loudon Creamery Association (Hamilton).

Richmond.—It is stated that a brick-yard will be started on Turkey Island with E. M. Gibson as superintendent.

Roanoke.—A \$6,000 engine-house is to be erected. The mayor can give particulars.

Roanoke.—The Crozer Steel & Iron Co. are relining their furnace.

Snowville.—The capital stock of the company reported last week as being formed to build a woolen mill will be \$20,000. C. A. Post, of Hartford, Conn., will be interested. Second-hand machinery for carding, spinning and weaving is wanted. Address C. S. Bill.

Suffolk.—It is rumored that the syndicate who are building the Atlantic & Danville Railroad will build a railroad from Suffolk to Wilmington, N. C.

Tazewell C. H.—W. W. & M. L. Peery will erect a number of buildings at their Clinch River Woolen Mills lately erected.

Warrenton.—An abattoir is reported to be established soon.

Warrenton.—A canning factory is to be started.

Warrenton.—Northern parties have been inspecting the Prince William granite quarries with a view to purchasing.

Woodstock.—A flour mill has, it is stated, been erected by M. V. French. The daily capacity is 24 barrels.

#### WEST VIRGINIA.

Charleston.—The Charleston & Gauley Bridge Railway Co., capital stock \$20,000, has been chartered by Edward B. Knight, George S. Couch, Edward W. Knight, Harry B. Smith and William A. Quarrier.

Coopers.—The Turkey Gap Coal & Coke Co., capital stock \$50,000, has lately been organized with W. H. McQuail, of Pottsville, Pa., as president and manager, and Frank P. Harman, New Philadelphia, Pa., secretary and treasurer. Are building 100 coke ovens.

Jane Lew.—V. B. Flesher, lately reported as erecting a roller flour mill, will also manufacture lumber. The capacity of the mill is 60 barrels per day.

St. George.—The Cheat River Boom & Lumber Co. has been incorporated to manufacture lumber, &c., by John D. Huling, Thomas F. Webb and S. K. Cogan, of St. George; Thomas J. Long, Holly Meadows, and Willis Hulings, Oil City, Pa. The capital stock is not to exceed \$150,000.

Wheeling.—Ohio county has authorized a \$300,000 subscription to the bridge across the Ohio river, the construction of which was lately mentioned as proposed by a New York syndicate headed by Herman Clark.

#### BURNED.

Calverton, Md. (P. O. Baltimore).—The slaughter-house and machinery of Charles G. Rohr & Son. Will rebuild.

Coopertown, Tenn.—The flour mill of F. M. Watt; loss about \$9,000. A stock company will probably be formed to rebuild the mill.

Harrisonburg, Va.—The roller flour mill of Clem & Wagner; loss \$35,000.

Louisville, Ky.—The cigar factory of Max Edelmuth partly burned.

New Orleans, La.—The printing office and book-bindery of Owen Grimon; loss about \$30,000.

Thomasville, Ga.—The Waverly Hotel owned by S. A. Peters. Will be rebuilt.

Vicksburg, Miss.—The spoke factory and ginny owned by the Vicksburg Spoke Works; loss \$35,000. Will be rebuilt at once.

Winchester, Va.—The Morgan Woolen Mills owned by Kern, Barr & Co.

The gins of Jenkins & La Roche, Edisto Island, S. C.; Burke & White, 8 miles from Vandalia, Ark.; John E. Thomas, Farmersville, La.; M. A. Pierson, Midway, Ala.; W. B. Griffin, Sunny Side, Ga., and I. A. Sugg, 2½ miles from Greenville, N. C., have been burned.

#### Enlarging Ice Factory.

KNOXVILLE, TENN., Dec 10, 1887.

*Editor Manufacturers' Record:*

On the 16 instant we contracted with David Boyle, of Chicago, for one of his thirty-ton ice machines, to be delivered at Knoxville within three months. The cost of additional machinery and building will be about \$30,000. Our capital stock is \$60,000. The above increase to our present ice plant will give us a capacity of 45 tons of ice every 24 hours.

KNOXVILLE ICE CO.

#### Developing Marble and Slate Quarries.

BRISTOL, TENN., Dec. 26, 1887.

*Editor Manufacturers' Record:*

I am now developing marble and slate quarries. The yield of fine material is abundant.

J. A. DICKEY.

#### MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, &c.]

Dry Kiln.—J. W. Carlin, superintendent Sheffield Manufacturing Co., Sheffield, Ala., wants to correspond with manufacturers of dry kilns that use exhaust steam as a dryer.

Handle Machinery.—A. D. Mills, Montgomery, Ala., wants spot cash prices on machinery for manufacturing curtain poles, broom and other handles, &c.; also address of parties who buy such articles.

Head Blocks.—C. N. Fisher, Seven Oaks, Texas, wants prices of head blocks suitable for a saw mill of 50 M feet daily capacity.

Joseph L. Pearson, Goldsboro, N. C., wants the address of manufacturers of bobbins, shuttles, &c.

Knitting Machinery.—M. A. Farrell, Dayton, Tenn., wants the address of manufacturers of knitting machines.

Machinery for Canning Factory is wanted by C. H. Vines, Fincastle, Va.

Machinery for cutting butter bowls is wanted by C. W. Briggs, Kissimmee, Fla.

Proposals for furnishing 2,465 tons of cast iron pipe, from 1½ to 20 inches in diameter, cast-iron pipe fittings, brass stops and ferrules, and special brass and iron castings, from manufacturers only, and proposals for furnishing 4-4 lumber and jate packing, from the trade, will be received until January 9 by Robert K. Martin, Chief Engineer Water Department, Baltimore, Md.

Pump.—Proposals for 1,000,000 gallon duplex, double plunger pumps, outside plunger and packing preferred, will be received until February 1 by James P. Wigal, engineer Henderson Water Works, Henderson, Ky.

Rice Mill Machinery.—Newton H. Smith, Fayetteville, N. C., wants to purchase machinery for rice mill and lathes for broom handles.

Saw.—The South Anniston Carriage & Wagon Co., Anniston, Ala., want to buy a hand or gig saw for heavy hard wood, and some shunting and pulleys.

Saw Mill.—S. W. Allen, Golansville, Va., wants to purchase machinery for an 18 horse-power saw mill.

Soap Machinery.—The Jarman Ice Factory, New Berne, N. C., want to correspond with manufacturers of soap machinery for working up cotton seed oil.

Woolen Machinery.—Second-hand machinery for carding, spinning and weaving is wanted by C. S. Bill, Snowville, Va.

EUREKA SPRINGS, ARK., Dec. 24, 1887.

*Editor Manufacturers' Record:*

We contemplate putting in wood-working machinery for wagon supplies. We put in a felloe sawing machine August last.

J. F. CUNNINGHAM & CO.

GALLATIN, TENN., Dec. 26, 1887.

*Editor Manufacturers' Record:*

We have a contract of 22½ miles from Caney Fork to Cookville, Putnam county, Tenn., and are now at work, for the Nashville & Knoxville Railroad. The work from Lebanon to our contract is let, with a large force at work; track laying will commence February 1st.

J. C. RODEMER & CO.

CHARLESTON, N. C., Dec 19, 1887.

*Editor Manufacturers' Record:*

This company will aid in building a sanitarium at a point in this section not yet selected; establish a newspaper at this place; develop the rich mineral and timber resources of Western North Carolina, invite immigration, etc.

MID-MOUNTAIN LAND & MINING CO.

#### Will Erect Saw Mill.

RED SPRINGS, N. C., Dec. 20, 1887.

*Editor Manufacturers' Record:*

McNell & Hall have brought machinery and will erect at once a saw mill, 30,000 feet daily capacity, with dry kilns, planers, &c., at Fayetteville, N. C. Will ship by steamer to Wilmington, N. C., for coast-wise trade yellow heart pine, birch, maple and oak lumber.

GEO. H. HALL.

#### Building Roller Flour Mill.

JANE LEW, W. VA., Dec. 19, 1887.

*Editor Manufacturers' Record:*

I am building a full roller process mill, on the Case system with eight reductions. Mill will be completed about April. The capacity is 50 barrels per day. I also manufacture all kinds of sawed lumber, poplar, oak, walnut, cherry, &c.

V. B. FLESHER.

#### Leaf Tobacco Factory.

SOUTH BOSTON, VA., Dec. 21, 1887.

*Editor Manufacturers' Record:*

I am at this time building a brick leaf factory, 46x100 feet, four stories high for handling leaf tobacco. I have also recently completed a brick warehouse for the sale of leaf tobacco. This building is 60x225 feet, two stories high on front.

H. A. EDMONDSON.

#### To Build \$15,000 Hotel.

ALBANY, GA., Dec. 20, 1887.

*Editor Manufacturers' Record:*

I intend to put up a hotel in a short while and expect to invest between \$15,000 and \$20,000.

MRS. Z. T. MAYO

#### Electric Light Plant to be Erected.

MORRISTOWN, TENN., Dec 17, 1887.

*Editor Manufacturers' Record:*

The Board of Mayor and Aldermen of the city granted the right of way to the Morristown Street Railway Co. to construct a street railway here. Also granted a franchise of five years to the Morristown Electric Light Co.

J. C. MATHES & CO.

#### Will Double Output Coal Mines.

CHATTANOOGA, TENN., Dec. 22, 1887.

*Editor Manufacturers' Record:*

Myself and associates have leased the Daisy mines for 5 years with privilege of buying at the expiration of one year at a stipulated price. We intend doubling the capacity of the mines at once.

J. T. WILLIAMS.

#### Saw Mill.

SORGHO, KY., Dec., 19, 1887.

*Editor Manufacturers' Record:*

I intend to start a saw mill at Sorgho, with a capacity of about 10,000 feet per day. Will be in operation in about two weeks.

T. A. FUQUA.

COLUMBIA, S. C., Dec. 21, 1887.

*Editor Manufacturers' Record:*

Messrs. A. I. Dial, Wm. H. Lyles and E. C. Haynsworth are taking steps towards the formation of the Dial Engine Works to manufacture engines, boilers and other machinery.

WM. H. LYLES

KENNESAW, GA., Dec. 21, 1887.

*Editor Manufacturers' Record:*

Our firm is making preparations to add to their gin, saw, flour and grist mill, machinery for making sawed barrel hoops. Hope to be ready to make shipments last of February.

T. J. HARDAGE & CO.



## Mississippi Notes.

## Agricultural and Manufacturing Items.

[Special correspondence MANUFACTURERS' RECORD.]

ABERDEEN, MISS., December 24, 1887.

The W. T. Adams Machine Company, of Corinth, has just filled an order for one of their twenty horse-power steam engines for Louisville, Ky. and has made a number of shipments of machinery of their manufacture to Missouri this year.

Mr. T. N. Warner, of Kansas, has just established himself in the sheep business, in the piney woods range near the dividing lines of Mississippi and Alabama, about 15 miles south of State Line station on the Mobile & Ohio Railroad. He brought with him his own herds of sheep, several ponies, and 1,400 head of sheep. As we have often said in these notes, the Southern piney woods regions of Mississippi and Alabama afford the finest sheep walks in the world: No feeding, no shelter, no burr, perpetual pasturage, and plenty of sparkling, pure water, and weather that is eternal alternation between autumn and spring, and the whole country almost a free range. No one knows how many sheep are browsing in this favored region, for the census and assessment rolls record but a tithe of them, yet there is room enough for millions more and their clip sells at higher figures than the wool from sheep of same breed in any other range in America, and makes the wonderful fabrics that enable the Mississippi Mills at Weson, in Copiah county, to take first premiums at every exposition, and to report through your valuable journal, as they did in its issue of December 24th, that they are loaded with orders six months ahead and forced to increase their plant fifty per cent., although they are now running the biggest mill and largest force employed in woolen and cotton manufacturing in the Gulf States.

Secretary of the Navy Whitney can't get ahead of the Natches (Miss.) Cotton Mills Company. That establishment presented a Christmas turkey to each of its employees.

Crystal Springs, in Copiah county, is agitating for the establishment of a theological seminary in that vicinity.

Dr. H. E. McKay, of Madison county, known as the "Strawberry King," on account of being the most extensive producer and shipper of strawberries in the world, says: "Ten years ago the amount realized by Mississippi fruit shipments did not exceed \$20,000 per annum, but in 1887 the total of her exports reached fully \$1,000,000, with sales to local consumers of as much more."

One of the leading industries of Jackson, the State capital, is the Pearl River Foundry, Agricultural Works & Machine Shops. This establishment occupies, with its buildings and yards, about five acres of ground, and the engines and plows of its manufacture find markets in a large area of country.

The law library of the State of Mississippi, located in the Capitol Building, is the third in size in the United States, and for a number of years the legislature has elected a lady, Mrs. Mary Marancy, to the important post of librarian. Its management has been excellent, and the re-election of the talented lady in charge by the legislature of 1888 is certain.

The Boonville Plaindealer winds up an article on the prosperous condition of Prentiss county as follows: "Plenty of cotton, plenty of corn, plenty of fat hogs, and people returning from Texas every day. Who says we are not on a boom?"

We do not think we exaggerate in saying that fully three-fourths of the steam engines purchased by Mississippians are manufactured in the State.

Most of the farmers and planters of Mississippi made all of their meat before the war, and from the reports that reach us from various portions of the State it seems as though they are rapidly getting back to the old order of things.

Among the fine crops reported this season was that of a negro in Holmes county named James Dulaney, who, with two mules, made 30 bales of cotton worth \$1 350, 250 bushels of corn worth \$89.50, 100 gallons of sorghum worth \$60, 100 bushels of potatoes worth \$40, in addition to numerous other products. He also put up 2,000 pounds of meat, saved large quantities of hay and corn fodder, and hauled in his winter's wood. This shows what can be accomplished by one man power in the Mississippi bottom.

Mr. L. L. Cole, of Noxubee county, rented a place this season for \$200, from which he cut \$3,000 worth of hay from the indigenous grasses. This is an example of what can be done by one man power in the prairies of Mississippi.

The oyster men on the coast are crowded with orders that represent many of the leading cities of the South and West.

Venison is selling in the coast markets at 9 cents a pound.

The shipments of lumber from Pascagoula for the week ending December 22 were 232,698 feet to Port Natal, and 107,272 feet to Key West.

Over a dozen families of farmer residents returned to Tate county from Arkansas and Texas this month.

The spoke factory at Vicksburg, an establishment owned by a stock company and doing a large business, was burned December 22. Large quantities of material and manufactured goods were saved. The total insurance was but \$13,000. A large number of hands were thrown out of work. The company will rebuild the factory at once.

All of the logging streams in South Mississippi have been greatly benefitted by recent rains, and tens of thousands of fine pine and cypress logs will find their way to the many mills in the coast region that have been "running slack" during the greater portion of the fall season.

A party of prospectors from the vicinity of Wakefield, Neb., all good, substantial men, were down on the coast looking up new homes last week. We understand that they were all accommodated and will bring their families South before spring.

The tug Rosalie last week took advantage of the first good stage of water in the Pascagoula river for several months, and, carrying barges up the river, brought down 1,100 barrels of rosin and turpentine.

The steamer D. L. Tolly, of Mobile, which has been undergoing repairs at Blanchard's ship-yard at Scranton, was launched last week.

## Woolen Mill Machinery Wanted.

SNOWVILLE, VA., Dec. 24, 1887.

*Editor Manufacturers' Record:*

A joint stock company is being organized here for the manufacture of woolen goods. C. A. Post, of Hartford, Conn., will hold a controlling interest in the company. Capital stock will be \$20,000, but \$6,000 paid up. Correspondence is desired with parties owning good second-hand machinery for carding, spinning and weaving. Inquiries addressed to C. S. Bill will receive prompt attention.

W. F. PALMER

## Will Add Machinery.

BALTIMORE, MD., Dec. 17, 1887.

*Editor Manufacturers' Record:*

The mills formerly owned by Union Manufacturing Co. are now known as Oella Mills, and the name of village and station is Oella. The Baltimore & Ohio Railroad has established a freight and ticket agency there. We have strengthened No. 3 mill by putting in additional girders, and are now doing the same with No. 2 mill. We are also building a dye and dry house and will add additional machinery to the mills next year.

J. DICKEY &amp; SONS.

## Large Cotton Mill Projected.

FORT SMITH, ARK., Dec. 23, 1887.

*Editor Manufacturers' Record:*

Our citizens are taking steps to organize a company to build a new cotton mill, which will cost from \$200,000 to \$300,000, and we want to find a good, practical cotton mill man who is willing to take stock in the company to the amount of from \$10,000 to \$25,000, (or even more if he wants to,) and superintend the mill. Fort Smith is certainly one of the very best points in the United States for a cotton mill. It is the extreme northwestern city of the cotton belt, is abundantly supplied with semi-anthracite coal, surrounding and underlying the town, the price of which is \$2 per ton. Has four railroads in operation and five building, giving us close and competing connections with Kansas, Missouri, Texas and the Indian Territory. Good soft water, cheap labor, healthy location, school fund of \$1,000,000, and a rapidly growing population of 18,000 people, largely made up from the North and West. The county and city are free from debt, and our tax for all purposes amounts to but one-half of one per cent. on a full valuation.

CHAMBER OF COMMERCE,  
R. H. ADAIR, Sec.

## To Manufacture Artificial Stone.

PENSACOLA, FLA., Dec. 20, 1887.

*Editor Manufacturers' Record:*

My partners at Montgomery, Messrs. Curbow and Clapp, are a part of the Montgomery Artificial Stone & Building Co., and control the patent for this stone for the city of Pensacola and Escambia county. It is our intention as early after January first as possible to organize a company here for the manufacture of this stone, and we feel assured of having a sufficient number of shares taken by business men to organize a good working company. The capital required is about \$2,500, and the prospect is good for a large demand for the stone for paving and building purposes. There are several new enterprises being discussed, and the citizens are now engaged in raising a subscription of \$100,000 for the Pensacola & Memphis Railroad, a new enterprise, which, if successful, is confidently expected to add largely to the business of the city. There have been several large investments in timber and mill property in this section within the past few months by Northern mill men.

W. M. LOFTIN

## To Build Street Railroad.

PINEVILLE, KY., Dec. 21, 1887.

*Editor Manufacturers' Record:*

A new court-house, jail and jailor's residence will be built here at once. Specifications, plans, etc., may be seen at McDonald Bro's office, Louisville, Ky., or at Bridge Commissioners office, Pineville, Ky. We are now rapidly building our hotel of 50 rooms, modern in every respect, more especially adapted as a summer resort, being located on the side of a picturesque mountain. Street railway will be built in the early spring. Company now organizing. Recent explorations by the State geologist have proven the extensive deposit of iron ore—brown hematite, lying immediately above the Oriskany sandstone. The bed on opening is 26 feet thick. Red hematite also has been discovered.

T. C. H. VANCE.

## Will Develop Quarry.

SAN ANTONIO, TEXAS, Dec. 24, 1887.

*Editor Manufacturers' Record:*

I am engaged to develop a splendid marble, granite and limestone quarry.

FRANK TRICH.

## Enlarging Silk Factory.

HAGERSTOWN, MD., Dec. 26, 1887.

*Editor Manufacturers' Record:*

We have quadrupled our capital and are adding to our plant every week new machinery. As fast as we can get one piece running we add another. We intend to add to our weaving and winding business a throwing department, a silk finishing department and, in all probability, a dyeing establishment, and will work when we get it all going about 300 hands.

UNITED SILK MFG. CO.

## Another Cotton Factory for North Carolina.

CHARLOTTE, N. C., Dec. 22, 1887.

*Editor Manufacturers' Record:*

The cotton mill is an assured fact. Plan co-operative. Capital stock is to be \$100,000—1000 shares of \$100 each; 600 shares already taken. Hope to get building finished and ready to place machinery by October 1st, 1888.

WALTER BREM.

COLUMBIA, TENN., Dec. 19, 1887.

*Editor Manufacturers' Record:*

I am building a carriage factory.

W. M. BUCHANAN.

## Erected Woolen Mill.

TAZEWELL C. H., VA., Dec. 27, 1887.

*Editor Manufacturers' Record:*

We have lately completed and are now operating a one set woolen mill. Manufacture yarns and woolen goods. Have had a good season's run this year and will run on full time during the winter.

W. W. &amp; M. L. PEERY.

BEEBE, ARK., Dec. 19, 1887.

*Editor Manufacturers' Record:*

I have opened a marl mine and am excavating it by hand power now. I expect to put in some machinery in a short time.

CYRUS HELLER.

JAMISON, S. C., Dec. 26, 1887.

*Editor Manufacturers' Record:*

My saw mill, gins and grist mill were burned. I have already rebuilt saw mill and will put up the balance as soon as possible.

Y. P. HORGAN

UNIONVILLE, MD., Dec. 27, 1887.

*Editor Manufacturers' Record:*

A creamery is being erected here by Capt E. D. Danner, of this place, and B. O. Frizzell, of Catonsville. They expect to be in operation by early spring.

C. A. LINDSAY.

THE MANUFACTURERS' RECORD is authority on all subjects pertaining to manufactures and industries of every description, and is doing more than any dozen papers to attract capital to the South. It is distinctly a Southern journal, devoted to Southern manufactures alone. — Tuscaloosa (Ala.) Gazette.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more.



**Water Works to be Built.**

BEAUMONT, TEXAS, Dec. 21, 1887.

*Editor Manufacturers' Record:*

The city has taken hold of the water works matter, and will erect a stand pipe 12 feet diameter by 120 feet high, and will put down about 2 miles mains, 8, 6 and 4 inches. Pump 16 inches steam and 8 inches water cylinder. Contractors, Messrs. Thomas & Gorman, of Dallas and Houston, Texas. RELIANCE LUMBER CO.

MOSSY CREEK, TENN., Dec. 22 1887.

*Editor Manufacturers' Record:*

I am making preparations to start a broom factory at this place as soon as I get necessary machinery.

GEORGE MCDANIEL.

BUEFORD, ARK., Dec. 15, 1887.

*Editor Manufacturers' Record:*

I have erected at Cornell's Landing a saw mill and cotton gin. Have them now in operation, and shall, in the near future, add shingle mill and planer, also grist mill.

ABE C. CORNELL.

**Will Erect Electric Light Plant.**

WAXAHACHEE, TEXAS, Dec. 20, 1887.

*Editor Manufacturers' Record:*

The Waxahachie Electric Light, Power & Water Co. has just been organized, capital stock \$50,000. The company will proceed at once to put in 250 incandescent lights and 15 arc, with tower. A street railway company has also been chartered, and, if proper franchise can be had from city, work will begin at an early day.

GRACE &amp; TEMPLETON.

KINGSTON, GA., Dec. 23, 1887.

*Editor Manufacturers' Record:*

We propose to favor and assist any enterprises that will promote the prosperity of this section. The project of erecting a compress has been discussed, and we will investigate it, and see if, in our opinion, it will be feasible, and if so will endeavor to make it a success, and will add that both private and public aid has been promised to carry it out.

BAYLESS &amp; BELL.

**To Build Roller Flour Mill**

MILAN, TENN., Dec. 21, 1887.

*Editor Manufacturers' Record:*

Mr. Ackerman, of South Bend, Ind., arrived this week, and will erect his axe handle factory as soon as the weather will permit. Mr. J. W. Coulter has contracted to build a roller mill. The capacity will be 40 barrels per day. Ample room will be built for additional machinery when it becomes necessary. Our town is in need of factories, and parties from the North coming South could not do better than to locate here. We have two of the most important lines of railroad in the United States, viz: The Illinois Central from Chicago to New Orleans, and the Louisville & Nashville, which has branches in nearly every State in the South. The Tennessee Central & Alabama will probably be built next year from here to Florence, Ala. This will give us an outlet to the large coal and iron fields of Tennessee and Alabama.

L. H.

KNOXVILLE, TENN., Dec. 24, 1887.

*Editor Manufacturers' Record:*

A. A. Arthur, W. P. Chamberlain, J. W. Brooks, M. L. Ross, J. A. Smith, H. H. Ingersoll and myself have procured a charter for the erection of an incandescent electric light plant. When we will commence, what system we will use or what number of lights, we have not yet determined.

CONDON BROS.

**To Start Canning Factory.**

JACKSONVILLE, TEXAS, Dec. 21, 1887.

*Editor Manufacturers' Record:*

A company has been organized here to start a canning factory. It will be chartered. W. H. Lovelady, president, and J. L. Douglas, secretary. \$5,000 stock has been taken.

B. B. CANNON.

**Soap Machinery Wanted.**

NEW BERNE, N. C., Dec. 19, 1887.

*Editor Manufacturers' Record:*

We are adding distillery apparatus, and would like to hear from manufacturers of soap-making machinery to work up cotton seed stock.

JARMAN ICE FACTORY.

**Brick Works.**

TALLAPOOSA, GA., Dec. 21, 1887.

*Editor Manufacturers' Record:*

We are going to start a steam brick manufactory within 60 days, and our malleable iron foundry will be ready to start in 8 months. We have commenced grading for the brick-yard, and have a machine that will turn out 40,000 brick a day.

TALLAPOOSA MALLEABLE IRON CO.

**Canning Factory.**

FINCATTLE, VA., Dec. 21, 1887.

*Editor Manufacturers' Record:*

I propose to start a canning factory at Jackson (Old Hickory P. O.) Botetourt county. Will put in 30 horse power machinery with capacity of 20,000 cases of canned goods. Tomatoes a specialty.

C. H. VINES.

**Building 100 Coke Ovens.**

ELK HORN, (P. O. COOPERS,) W. VA., Dec. 21, 1887.

*Editor Manufacturers' Record:*

Our company has lately been incorporated, with capital stock of \$50,000, with W. H. McQuail, of Pottsville, Pa., (late manager for the Alliance Coal Co., at New Philadelphia, Pa.) president, and Frank P. Harman, (late of the firm of Wm. H. Harman & Son), of Little River, Floyd county, Va., secretary and treasurer. We are building 100 ovens.

TURKEY GAP COAL &amp; COKE CO.

**Will Enlarge Plant.**

ANTIMONY CITY, ARK., Dec. 23, 1887.

*Editor Manufacturers' Record:*

We have already expended \$300,000 in mines, machinery, furnaces (reverberatory) saw mills, etc., and will extend the plant next year, and expect to have an outlay of nearly half million before 1889.

WM. F. ROBERTS, JR.

**To Build Cotton-Seed Oil Mill.**

TARBORO, N. C., Dec. 26, 1887.

*Editor Manufacturers' Record:*

A company has been formed here to produce cotton-seed oil. It is cooperative; title the Farmers' Cooperative Manufacturing Company. Capital stock is \$25,000, fifty per cent. of which will be paid in as quickly as needed. Erection of buildings, purchase of oil machinery, engine, boiler, &c., are being set afoot. The plant will be a 20 ton mill and located about 3 miles from this place, at a point central to the cotton growers. The president is Dr. L. L. Staton, and secretary and treasurer, E. V. Zoeller.

E. V. ZOELLER.

**Erecting Saw Mill.**

FOSTER'S MILLS, GA., Dec. 14, 1887.

*Editor Manufacturers' Record:*

W. G. Foster, A. D. Hardin and J. W. T. Parkin are erecting a saw mill seven miles below Rome, Ga.

S. C. KNIGHT.

**Building Large Machine Shops.**

ROANOKE, VA., Dec. 20, 1887

*Editor Manufacturers' Record:*

We are going to erect during the present year (in fact have already commenced) round houses, repair shops and residences for employees; also station buildings at Crewe on our Eastern division, and Bluefields on our New river division.

NORFOLK & WESTERN RAILROAD CO.,  
JOSEPH H. SANDS, Gen. Man.

**C. R. MAKEPEACE & CO.**  
**ARCHITECTS and MILL ENGINEERS**  
PROVIDENCE, R. I. Plans, Specifications and Estimates furnished for Cotton and Woolen Mills.

**D. W. K. PEACOCK,**  
**Real Estate Agent,**  
CARTERSVILLE, GA.

**Minerals a Specialty.**  
Refers to THE HOWARD BANK, Cartersville, Ga.  
J. W. RAWLIN, Atlanta, Ga.

**Manufacturers' Bureau, of Fort Smith, Ark.**

Invite correspondence and propositions from manufacturers with a view to locating at Fort Smith. Fort Smith is the center of an immense semi-anthracite coal, lumber, iron and cotton region, with railroad facilities giving close connections with the markets of Kansas, Texas, Missouri, Indian Territory and Arkansas. Population in 1880, 7,500; in 1886, 14,000; in September, 1887, 18,000.

**REAL ESTATE IN A**  
**Booming Alabama Town**  
**FOR SALE.**

**Three Hundred Choice Business**  
**and Residence Lots in the**  
**CITY OF ANNISTON.**

This property is the best in the city, and having been bought before the boom, will be sold at prices affording investors a rare opportunity to make certain and handsome profits. Address  
**F. M. HIGHT, Anniston, Ala.**

**COPY OF ORDINANCE**

Passed by the Council of the Town of West Point, Virginia, on the 21st day of April, 1879, and re-enacted and approved on the 22d day of March, 1887.

Be it ordained by the Council of the Town of West Point, Va., that any party or parties investing in property in this town for the purpose of conducting any enterprise, such as manufactories, packing houses, &c., and actually operating the same, they shall be exempt from all corporation taxes upon such property, and all machinery and improvements thereon, for the term of ten years from the purchase of such property.

It is also ordered that the Mayor is hereby instructed to advertise this ordinance in the "MANUFACTURERS' RECORD," a paper published in the City of Baltimore, Md.

E. WILKINSON, Mayor.

**THE SOUTH BALTIMORE**  
**Harbor & Improvement Co.**  
**Of Anne Arundel County,**

Offers for sale or lease at moderate rates BUILDING LOTS on paved streets upon its property on Curtis Bay, about one mile southeast of Light Street Bridge—the southern boundary of Baltimore city—and near the extensive South Baltimore Car Works just completed and in operation. It also offers suitable locations, with or without water front, for all kinds of manufactories, with special inducements to persons engaged in small manufacturing industries. Particular attention is directed to manufacturers east and north of Baltimore to this locality which, besides its proximity to the Southern markets, has many advantages, such as railroad and water communications, cheap house rents, easy access to the city, etc. The location is high and healthy, rising to about 160 feet above tide-water. For further particulars apply to

**WM. S. RAYNER,**  
Pres. S. B. H. & I. Co.  
8 E. Lexington St. BALTIMORE.

**Business Opportunity.**

A well established and successful Planing Mill and Lumber business. Centrally located. Profits \$3,500. Investment \$7,500. Established five years. Best of reasons given for selling. Apply immediately to G. B. MAY, Atlanta, Ga.

**Gallatin, Tenn, Cotton Factory FOR SALE.**

Factory is situated immediately on Chesapeake & Nashville R. R., and right in city of Gallatin, on L. & N. R. R. Factory has 300 horse power engine, 126 looms, with sufficient machinery to run the looms to their full capacity; never failing water for all purposes. Machinery all in good running order. All machinery automatic and of latest improved kind. Makes from 7,000 to 7,500 yards of goods per day. Looms 44, but arranged to make, when desired, either 3 or 50s. There is also attached to factory merchant grist mill; in addition large double brick house, also eleven cottages for operatives. Property cost \$150,000. Will be sold at a bargain. Machinery will be sold separately if desired. There are some 30 acres of land adjoining factory. For particulars address

BANK OF GALLATIN,  
Gallatin, Tenn.**GREEN FOREST, Rockbridge County, Va.**

Best location in the State for a Furnace. Vast beds of rich Buena-Vista iron ore at hand. Coke at less than three dollars per ton. Eight acres for a site offered FREE on the S. V. R. and the R. & A. Railroad.

Best location for a Paper Mill. Supply of soft wood unlimited. Two acres FREE for a site.

Best location for a Woolen Mill. One acre FREE for a site. Large water power available. Write to

H. C. MOOMAW.

H. H. NEILSON.

E. H. MARTINMAN.

**R. H. Neilson & Co.**  
**REAL ESTATE**

**Abstract Agents**

**Bond and Stock Brokers,**  
**Tuskaloosa, Alabama.**

Ten years' experience in handling Southern lands. Coal, iron and pine lands a specialty. Refer with permission to F. S. Moody, president First National Bank; J. H. Fitts, president Castle Hill Land Co., and Fitts' Bank.

Office up Stairs, Over Spiller's Store.  
Well posted in coal and pine lands.

**SALE OF**  
**Cotton Factory**  
**FLOURING MILL,**

AND OTHER

**Valuable Real Estate.**

By virtue of a deed in trust, executed to me by A. Hines and wife, M. B. Hines, of Surrey county, recorded in book 1, page 520-521, register's office of Surrey county, on 25th day of June, 1888, I will expose to sale at public auction in Mt. Airy, on WEDNESDAY, the 1st day of February, 1889, the following described real estate, lying in the town of Mt. Airy on the Ararat river, known as the HAMBURG MILLS, containing 4 1/2 acres. On this tract is situated a BRICK COTTON FACTORY, fully equipped with machinery, a VALUABLE FLOURING MILL, SHOE FACTORY, STOREHOUSE, and a number of tenement houses. This is one of the finest water powers in Surrey county. The Mill is within one mile of the railroad, and is one of the finest properties in North Carolina. Terms of sale, cash.

J. C. BUXTON,  
Dec. 12th, 1887. Trustee.



### To Enlarge Electric Plant.

DALLAS, TEXAS, Dec. 17, 1887.

*Editor Manufacturers' Record:*

We have organized a new electric light company under the name of the Electric Light, Power & Manufacturing Co. Capital is \$50,000. We bought out the old Texas Electric Light & Manufacturing Co. It is our intention to enlarge the plant considerably, though don't know yet to what capacity.

L. CRADDOCK.

### To Manufacture Motors.

CINCINNATI, O., Dec. 20, 1887.

*Editor Manufacturers' Record:*

We organized a stock company last Saturday for the purpose of manufacturing the Davidson steam motor recently patented. The main object of this motor will be operating or running street cars. Our capital is now \$100,000, but within a few months we expect to increase it to \$600,000. Our plant will be at Nashville, Tenn., and will be erected at an early date.

DAVIDSON MOTOR CO.,

O. E. DAVIDSON, Supt.

### Several Factories Enlarged.

HAGERSTOWN, MD., Dec. 23, 1887.

*Editor Manufacturers' Record:*

Hagerstown is still booming along. Our new roller flouring mill built by Emmert Bros. has just started up and gives perfect satisfaction. The United Silk Co. have just doubled their capacity; also the Antietam Hosiery Mills, Standard Broom Works, the Hagerstown Mattress & Upholstering Co., and Excelsior Hosiery Co., all have enlarged their works and capacity. A dozen new enterprises will be started here before spring, as our natural location and shipping facilities are fast being recognized by manufacturers.

M. L. FUNKHOUSER & Co.

### New Enterprises at Durham.

DURHAM, N. C., Dec. 22, 1887.

*Editor Manufacturers' Record:*

The Durham Sash, Door & Blind Factory has lately been organized with W. F. Remington as president. Capital is \$20,000. Also the Durham Iron & Wood Manufacturing Co., J. W. Blockwell, acting president. Capital \$50,000. The Durham Fertilizer Co. reorganized with capital of \$60,000. The cotton factory will be built, but have not yet organized.

E. C. HOCKING.

### Will Establish Wheel Factories.

WINCHESTER, TENN., Dec. 26, 1887.

*Editor Manufacturers' Record:*

The Tennessee Wheel Co., just organized at Albion, N. Y., will locate at Winchester. Their cash capital \$50,000. Their capacity will be 100 set of wheels per day. They have bought or will buy a brick building, 150x100 feet, two stories high. All their machinery will be of the best. Will break ground early in February.

J. L. GIRTON.

THE MANUFACTURERS' RECORD, of Baltimore, one of our most valued exchanges, is doing a good work for the South, showing as it does, week by week, the phenomenal development of this portion of the Union. The figures given by this journal almost seem incredible, but the names of each enterprise and the amount invested is given in full. The "Solid South" should subscribe by the thousands for the MANUFACTURERS' RECORD, and thus show its appreciation of the generous efforts being made by that paper to help us along on the road to wealth and prosperity—Journal of Commerce, Norfolk, Va.

### No. 2 Patent Tenoner.

The machine herewith shown is of pleasing design, constructed entirely of metal. It is strong and well made, simple, and accessible in all its parts. It will cut tenons in either hard or soft wood. This machine is intended mainly for carpenter, cabinet and furniture manufacturers, and it can be arranged for other kinds of work, such as wagon, chair and spoke work.

The column with its extension is cast in one rigid and heavy cored out piece, and has a very substantial floor support. It is essential that this part be strong; by its construction, vibration is prevented on that part, upon which the working parts are mounted.

The table upon which the material to be worked is placed, is cast in one light piece, and is substantially ribbed, thereby giving it strength. It is moveable back and forth easily and rapidly on accurately fitted ways; the under side of table immediately next to cutter has a "V" grooved way, and an adjustable gib which serve as a guide rail and prevents same from being lifted from the ways and thrown into the cutter heads, or thrown entirely from the machine, as is the case with many tenoners now in use. The far or extreme end of the table is provided with anti-friction rollers, also working on a planed way. By this manner of arranging the working parts, the hard labor so common with most all similar tenoners is very greatly reduced. A clamp rod is attached and placed convenient to operator, by which the

adjusted simultaneously, without changing the thickness of tenons a particle. The frame carrying upper spindle and head has a horizontal adjustment, so that the shoulders may be formed in or out of line with one another, as the work may require; both heads are driven at the same speed by one single belt, and the slack is taken up by a self-adjusting idler, and when once properly laced, requires no further attention.

When desired, this machine will be furnished with cut-off saw attachment, which will cut the tenons to any desired length.

The counter-shaft is attached to the machine, and the T. & L. pulleys are 8 inches in diameter, 4½-inch face, and their designated speed is 875 revolutions per minute. The outside floor hanger is only furnished and needed with cut-off saw attachment. The manufacturers are the Cordesman Machine Co. Cincinnati, O.

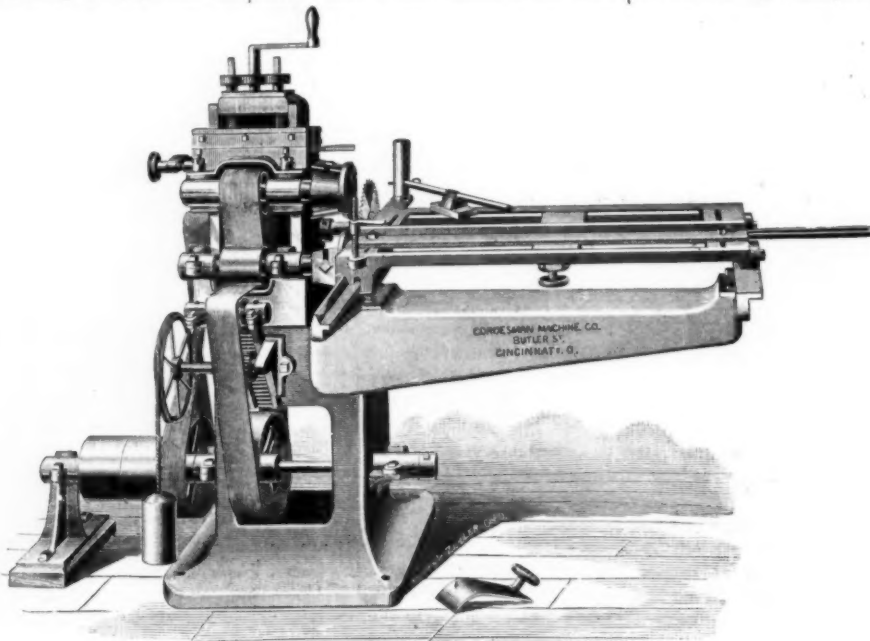
### "Creation's Garden Spot."

CITIZEN OFFICE,  
ASHEVILLE, N. C., Dec. 19, 1887.

*Editor Manufacturers' Record:*

The zeal displayed by the MANUFACTURERS' RECORD in behalf of Southern development is as unusual as useful, and I trust is as fully appreciated by the people of the whole country—for all are involved in all that pertains to any section of our country, whether for weal or woe—as your efforts merit. The natural resources of States South of us, notably Alabama and Georgia, have attracted much attention, and merit

hard woods, amounting to many millions of feet per annum, much of which is shipped directly to England and the Continent. There are many thousands of millions of feet of the finest woods—walnut, ash, cherry, poplar, hickory, mountain mahogany, beech, buckeye, &c., &c., yet uncut. Besides the resources peculiar to industrial enterprises, the agricultural advantages of the whole section are wonderful. Vegetables, fruits, grains, grasses and tobacco—the latter the finest quality of bright wrappers, lemon wrappers, and mahogany's grown in the world, frequently selling for from fifty cents to one dollar per pound by the hundred—are grown most successfully and profitably. Stock raising is growing to be one of the most profitable of enterprises. The mountains, to their very tops, are heavily covered with timbers, all well watered, and, of course, are rich in soil. Grasses and clover flourish wherever sown. There are thousands of acres of the richest of these lands, now covered with virgin forests, a very large per cent. of which—hard and fine woods—are merchantable; can be bought for from one and two to five dollars per acre, according to size of tract or boundary. I know of several boundaries containing from 30,000, 50,000, 70,000 acres, each covered with the finest timbers, splendidly watered, rich in soil, which can be had for from one to one and a half and two dollars per acre. There is a fortune in either of these tracts in lumber; there what a superb ranch for stock-raising. Except when the snow is



NO. 2 PATENT TENONER.

material can be securely and instantly held or released; the table is equipped with patent adjustable gauge rod and stops adjustable to pieces of various lengths, and by which distances between shoulders can be accurately regulated, rendering the "setting out" by hand unnecessary.

The cutter head spindles are made of the best steel, and run in long babbitted boxes; they are guarded against end play by special, effective and simple means.

The cutter heads are made small and will stand a very high rate of speed; the knives are four inches wide, formed angling on head, ground to the required shape, and will make a perfect draw cut. The heads are provided with spur cutters that rarely require attention, and by use of same, square shoulders can be smoothly cut. By running material over cutters twice, tenons as long as six inches can be cut.

The frames carrying cutter heads and spindles are adjustable vertically by means of independent screws by which the heads may be set to suit various thicknesses of material. When desired both screws can be instantly geared, and both heads can be

even more than they have received. Southwest Virginia is also coming in for a share of attention, and is improving rapidly. I wish to ask the attention of men of money and brains and muscle and energy to another section, which lies between the sections mentioned, which offers to such a field of rare attractions and opportunities. This is Western North Carolina. This section comprises the mountainous portion of the State; abounds in iron, copper, gold, marble, manganese, talc and many other useful as well as valuable resources. Among those now being profitably worked, some on a large scale, I may mention mica in Mitchell, Yancy and Macon counties; talc and marble in Macon, Swain and Cherokee; corundum in Macon, though splendid properties have been opened in Madison and Clay counties; iron and manganese in Mitchell and Cherokee, though there are splendid deposits of the former in this (Buncombe) and Madison counties, and a splendid deposit of manganese within three miles of this city, said to be very fine. Every county boasts its lumber mills, the shipments of fine and

on the ground, rarely for more than two or three days at a time, stock can fatten the year round on any of these lands. And water-powers on all of these are simply inestimable. And in all these mountain sections minerals of more or less value show themselves. The Western North Carolina Railroad bisects this section; another road is about completed from Marietta, Ga., to Murphy, Cherokee county, this State; another road will soon be built from Athens, Ga., down the Little Tennessee river to Knoxville, Tenn. Other railroads—one from Greenville, S. C., via Asheville to Knoxville; one from Aiken, S. C., via Picken's C. H., S. C., to Asheville, the extension of the Carolina Central, from Rutherfordton to Asheville, are certainties of the very early futures.

Asheville is the commercial and geographical center of all this section, and it is bearing the impress of such influence. Its population in 1886 was 2,627. In January, 1887, by official, house-to-house census, was 7,339. It is fully 8,000 now. By carefully gathered statistics it is shown that from 1st of last January to 1st of December, inst., over



one million six hundred thousand dollars were invested in buildings, in real estate for them, for residence, industrial, business and public purposes. The prospects for the coming spring are far more promising than they were at this time last year for the following spring. We have electric lights, gas, the best water supply and works in the South; will have street railway by spring; every denomination have their churches, some two and three each; we have fine colleges and schools, and in January will have one of the best graded schools (public) in the South, recently established by vote of the people; have four banks, several tobacco factories which manufacture the finest smoking tobaccos in the world, and very fine chewing; cigar, shoe, broom and other factories, a large cotton factory to cost \$125,000, two large ice plants, one large flouring mill, 50 barrels daily capacity, will be completed by early spring; tobacco warehouses which sell the crops of all this section (I wish you could see the daily breaks now); lumber yards and planing and wood-working factories up in the dozens; a furniture factory now doing a business of upwards of one hundred thousand dollars per annum—only established three years. Our county can boast more fine public iron bridges, all paid for, than any other county in the South.

The increase of values of property of the city since assessed last year, for taxation, was over one million of dollars. Our assessments do not reach two-thirds the cash value of the property, in a very large majority of cases do not reach one-half cash value. Total assessment of property of county about \$6,000,000. Debt of county \$100,000; debt of city \$140,000; both represented by six per cent. bonds. Rate of taxation, State and county combined, all purposes, seventy cents on the hundred dollars of real and personal property; city, all purposes, ninety-six cents on the hundred dollars of real and personal property; total State, county and

giving close connections with Atlanta, Charleston, Augusta and Jacksonville, Fla.

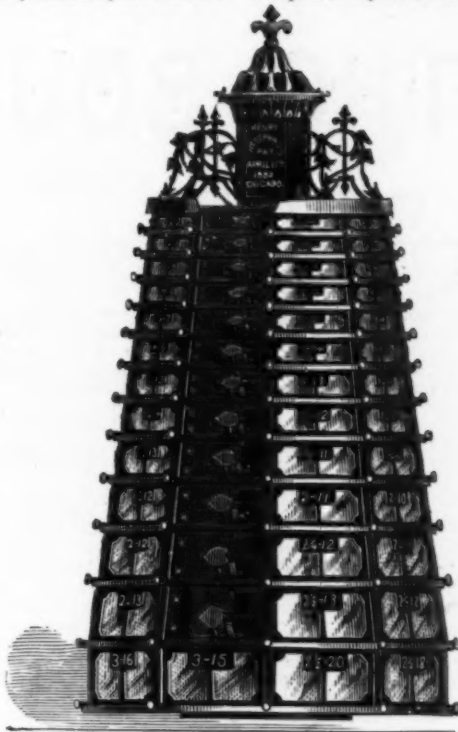
I have written you, hurriedly, a sketch of some of the attractions of this section, trusting you may find it of sufficient interest to admit its publication in the MANUFACTURERS' RECORD, thereby fixing the attention of some of the many thousands of good readers of that excellent publication in this magnificent portion of God's foot-stool, evidently His best piece of handi-

want good homes, with health and contentment, and good returns for reasonable energy and labor, are cordially invited. The capitalist who wishes good returns on his capital can find here safe and profitable investment.

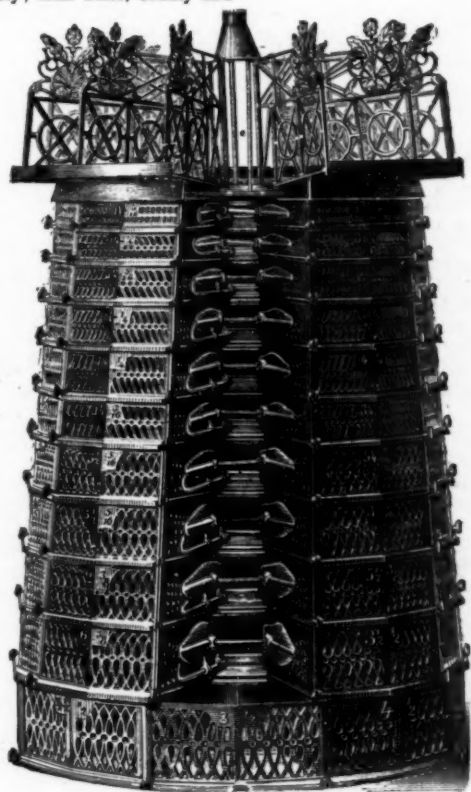
R. M. FURMAN.

### New Screw, Bolt and Shot Cases.

The engravings on this page represent Westphal's improved iron cases for shot,



SCREW CASE.



BOLT CASE



SHOT CASE.

in or removed, and as this opening is presumed to be at the back of the counter it is accessible only from that point, thus preventing the tampering with or mixing of goods by outside persons. The compartments are large and are designed to hold original packages of bolts of the various different sizes, as indicated by the markers on the front of each compartment.

The screw case is similarly constructed, but is made especially for screws, hence the compartments are smaller. The operation, however, is similar to that of the bolt case. In the screw case the box fronts are of glass, so that the contents may be seen. As with the bolt case, but one compartment is exposed at a time, and that at but the one given point, thus preventing meddling or mixing of sizes by outsiders.

The shot case is designed for the various sizes of shot, and is suspended upon an axis, in addition to which it rests on rollers. To fill the compartment each is turned under the funnel shown and filled. To remove the shot turn to the proper point (under the funnel) and the little bottom slide may be opened, but they cannot be opened at any other point. If more shot is drawn than is wanted (or over weight) the residue may be dropped into the top funnel and it will drop into the proper compartment. The compartments are so constructed that none of the shot will remain in the case if the opportunity is given it to run out.

1st. It is impossible to mix the different sizes of screws, bolts or shot. This is a very important point, and cannot be claimed in any other construction for holding these goods.

2d. Only those behind the counter have access to the contents of the cases, thus preventing customers from helping themselves.

3d. The condition and amount of stock is shown at a glance.

4th. They will save much space and many feet of shelving in any store.

city, all purposes, one dollar and sixty-six cents on the hundred dollars of real and personal property.

Four railroads now diverge at this city, one east to Salisbury, N. C., one northwest to Morristown and Knoxville, Tenn., one west to Red Marble Gap, (30 miles from Murphy, Cherokee county, will be completed to latter place in a year, there connecting with the Marietta (Ga.) & Murphy and Knoxville & Southern now in course of construction), the last to the South to Spartanburg,

work. Our climate has already established a reputation for this section as an unsurpassed, if not unequalled, winter and summer resort for those suffering with pulmonary and other diseases. Our hotels, new and superior, with every modern appointment for comfort and pleasure, offer a most agreeable home for all who have to seek health, rest or comfort. Our scenery is not equalled this side the Rockies. Good people, regardless of politics or religion, are heartily and sincerely welcomed. We have in Asheville now natives of almost every country, including the heathen Chinese, and all are happy and prosperous. All who

screws and bolts. They are for use in hardware or other stores where such goods are sold, and are for their purposes seemingly almost invaluable. The several articles are made of iron, with the addition of glass fronts in the screw case.

The bolt case consists of eleven shelves and a top rack, with eight compartments to each shelf except the lower one, which has nine, making in all 97 compartments. Each shelf revolves upon a central axis, each compartment being thus brought to the opening shown at the back, where goods may be put

5th. Any size can be found instantly.

6th. In addition to their great usefulness, they will ornament the counters of any store, for in these cases utility, strength and beauty are combined.

These cases are manufactured by Schenck's Adjustable Fire Back Co., 94 Market street, Chicago.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.



# THE

# Hercules Water Wheel

## IN THE SOUTH.

### WHAT SOUTHERN USERS SAY OF THE HERCULES.

There is probably no higher authority in the South on water wheels than Mr. John Hill, civil and mechanical engineer, of the great Eagle & Phenix Cotton Mills, at Columbus, Ga. Read what he says of the Hercules Wheel.

#### The Best Wheel We Have.

JOHN HILL, CIVIL AND MECHANICAL ENGINEER,  
Reference—Eagle & Phenix Mfg. Co.

COLUMBUS, GA., April 30, 1887.

As to my opinion of the Hercules Wheel, will say: In our mill (the Eagle & Phenix) we have twenty-one (21) water wheels of various kinds, three of them being Hercules. I regard the Hercules as being by far the best wheel of any we have. It is the best in workmanship, absence from repairs, large per cent. in power, and in general satisfactory results. I know of no wheel its equal. At Holyoke, testing flume a few weeks since, I personally witnessed a test of a Hercules of the ordinary construction, which gave 83 96-100 per cent. of efficiency.

Yours truly,

JOHN HILL.

#### Cannot Speak too Highly of the Hercules Wheel.

JAMES RIDDLE, SON & CO.  
Brandywine Cotton Mills.

KENTMERE, DEL., April 27, 1887.

In reply to your inquiry as to the working of a "Hercules Water Wheel" now running at our mills, would say that we put in nearly two years ago a 39-inch Hercules Wheel, running under a 14-foot head. It is driving up to full regular speed three hundred and three heavy looms, with only half gate. We are about to enlarge the weave mill and add three hundred more looms, which will be driven by the same wheel. We cannot speak too highly of the Hercules. It has absolutely run without cost or derangement since it started, and has given eminent satisfaction in every way.

Yours truly,

JAMES RIDDLE, SON & CO.

#### Perfectly Satisfactory in Every Way.

PORTER WOOLEN MILL.

J. H. Porter, President. J. W. Robertson, Gen. Manager.

CLARKSVILLE, GA., April 20, 1887.

In reply to enquiry as to my opinion of the Hercules Turbine Water Wheel, say: I have put in two, one about

six years since, and the other in 1883, and think so highly of the wheel that I shall use another in cotton mill this company is now constructing. Neither of the wheels alluded to have given the slightest trouble, and their working has been perfectly satisfactory in every way.

Yours truly,

J. W. ROBERTSON, Gen. Man.

#### The Hercules Wheels Have Given Perfect Satisfaction.

ROSSELL MANUFACTURING CO.  
Sheetings, Shirtings, Checks, Yarns, &c.

ROSSELL, COBB COUNTY, GA., April 20, 1887.

In answer to yours of 25th inst., asking our opinion of the Hercules Wheel, will say our experience is as follows: In our new mill, built about four (4) years ago, we put a 30-inch Hercules Wheel, under a 21-foot head of water. It has given such satisfaction running this (5,000) five thousand spindle mill, that last summer, when we were compelled to put in a new wheel at our old mill, running 7,000 spindles, looms, twistings, &c., we put in a 36-inch Hercules Wheel, under a 27-foot head of water. All I can say is we have surplus power in both mills, have lost no time by any defect of wheels, and if we were putting up any more mills, would use the Hercules Wheel. They have given us perfect satisfaction.

Yours respectfully,

F. J. MINHINNETT, Prest.

#### A Good Wheel, and Has Given Good Satisfaction.

PEE DEE MANUFACTURING CO.  
Plaids and Warps.

ROCKINGHAM, N. C., April 30, 1887.

We have been using the Hercules Water Wheel for more than six years. Our superintendent says it is a good wheel, has given good satisfaction, and its performance is equal to the claims of the maker. We have a head of 17 feet. Our wheel has a diameter of 39 inches. Under this water pressure the wheel has moved 4,000 spindles and the needed preparation, and 164 plaid looms. The above includes the dye house, machine shop and all other machinery which we employ.

Very respectfully,

WALTER L. STEELE, Prest.

#### Best Wheels I Have Ever Seen.

MARIETTA PAPER MANUFACTURING CO.,  
Book, News and Wrapping Papers.

MARIETTA, GA., April 30, 1887.

In reply to your favor of the 25th inst.: I am using four Hercules Water Wheels, two 12-inch, one 24-inch,

and one 30-inch. They have given me perfect satisfaction, and I think that they are the best wheels that I have ever seen.

Yours truly,

S. A. ANDERSON.

#### Has Never Given the Slightest Trouble.

PACOLET MANUFACTURING CO.

Jno. H. Montgomery, Prest. and Treas.

PACOLET, S. C., April 20, 1887.

Replying to yours of 25th, would say: We have a 54-inch Hercules Water Wheel running, under 20-foot head, 12,000 spindles and 328 looms, with other necessary machinery. Has been running about three and a-half years, and has never given us the slightest trouble; not an hour's stoppage during the whole time.

Very truly yours,

JNO. H. MONTGOMERY, Pres. and Treas.

#### Well Satisfied With It.

WM. J. RUSSELL,  
Manager Princeton Factory.

ATHENS, GA., April 28, 1887.

I have used the "Hercules" wheel since 1881, and am so well satisfied with it that I should not purchase any other it in want of a first-class wheel. It does all the manufacturers claim for it.

Yours truly,

WM. J. RUSSELL, Manager.

#### Has Given Entire Satisfaction.

HOLCUMB'S ROCK, BEDFORD CO., VA.,

April 28, 1887.

The Hercules Wheel has given entire satisfaction.

Very respectfully,

J. A. HARRIS & CO.

#### Unhesitatingly Say its the BOSS Wheel.

BUZELA, GA., April 20, 1887.

I have been using a 21-inch "Hercules Water Wheel" since August 1880, and unhesitatingly say it is the BOSS wheel. It has performed with utmost satisfaction, and given more power than the makers claim, using water with more economy than any wheel I ever knew. T. W. G. Inglett, Esq., who has put up two "Hercules" for parties, says "it can't be beat."

Very respectfully,

BRAD. MERRY.

## THE HERCULES

Gives the Most Power for its Size and the Highest Average Percentage from Full to One-Half Gate of Any Wheel Ever Made.

If you want to buy a new Water Wheel, if your old wheel does not give satisfaction, if you would like to know just how perfect a Water Wheel can be made, or if you are in any way interested in Water Wheels it will pay you to write for Catalogue No. 3 to the

# HOLYOKE MACHINE CO., Worcester, Mass.



# HEAVY STEEL

—AND—

# IRON PLATES

—AND—

# CYLINDERS

FOR SCREENING

Ore, Coal, Stone, Phosphates, Etc.

# REVOLVING SCREENS,

ROUND AND HEXAGON.



# GRIZZLIES

—FOR—

# Placer

# Mining.

# STAMP

# Battery Screens

Of all Kinds and Sizes.

# MINING SCREENS

For all Kinds of Ores.

# Cotton-Seed Oil Mills, Rice Mills, Sugar Houses, Distilleries,

# PHOSPHATE AND FERTILIZING WORKS,

# Elevators, Malt Kiln Floors, Grain Dryers, Threshers, Separators,

Corn Shellers and all kinds of Grain Cleaning Machinery; also for Mining and Concentrating Works, Coal, Coke and Ore Screens, Gas and Water Works, Paper, Woollen, Flour and Oil Mills, Filters, Strainers, Ventilators, Etc.

Special attention given to work for Railroads and Car Builders. Perforated Tin and Brass of all Sizes.

BY CORRESPONDENCE SOLICITED.

BY SATISFACTION GUARANTEED.

# THE HARRINGTON & KING PERFORATING COMPANY,

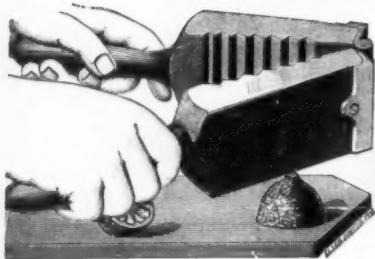
Main Office and Works, 224 and 226 North Union Street, Chicago.



# THE F. F. ADAMS CO., ERIE, PA.

MANUFACTURERS OF A LARGE AND COMPLETE LINE OF

## Household Articles

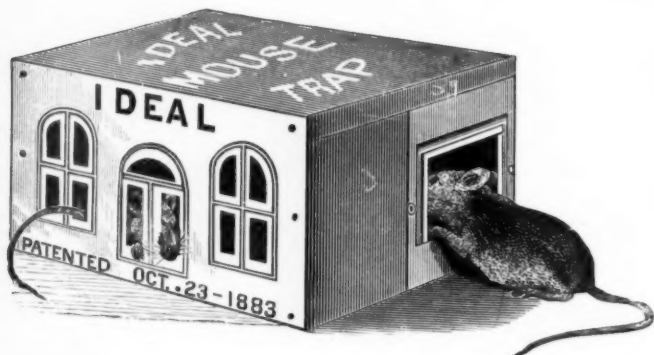


— AND —  
Hardware Specialties

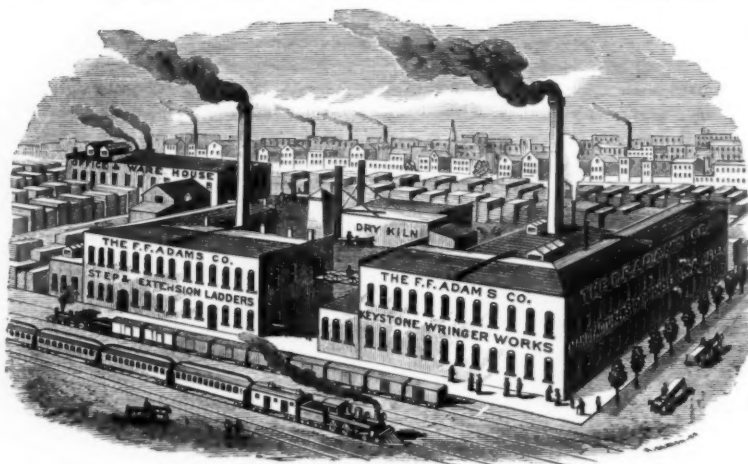


FOR THE

Hardware  
AND  
Woodenware  
TRADE.



Clothes Wringers,  
Dryers, Horses, Step  
Ladders,  
Mouse and Rat  
Traps,  
Cork Pullers, Lemon  
Squeezers,  
Bread Cutters,

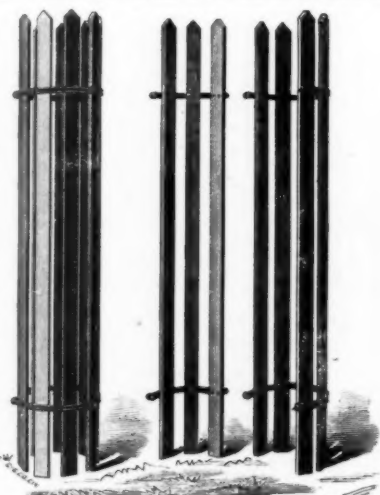


Common and Extension  
Ladders, Iron  
Tables, The Adams  
Swing, Trucks, Hur-  
ley's Automatic  
Steam Flue Cleaner,  
Lawn Sprinkler,  
Socket Rakes, Patent  
Tree Box.

### TO THE TRADE.



We have added a number of *New and Useful Household Articles and Specialties* to our already Large Line of Goods. They are all very Salable. We want a live dealer in every city and town of the South to handle our full line of specialties. Write now and secure terms and exclusive agency in your town or city. We will make it interesting for you. Address



**THE F. F. ADAMS COMPANY,**  
**ERIE, PA., U. S. A.**



# SULLIVAN

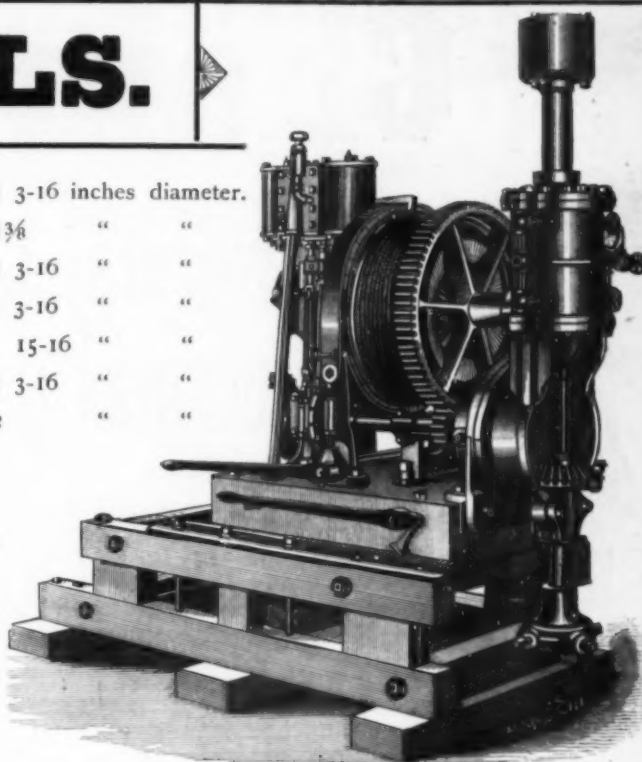
## Diamond Core Prospecting

### DRILLS.



A Drill.	Capacity	1,200 feet.	Core	1 3-16 inches diameter.
B "	"	3,000 "	"	1 3/8 "
C "	"	1,500 "	"	1 3-16 "
H "	"	800 "	"	1 3-16 "
E "	"	300 "	"	15-16 "
M "	"	300 "	"	1 3-16 "
N "	"	3,000 "	"	2 "

By using Large Core Barrels  
the diameter of Core can be increased to  
six inches if desired.



### Points of Superiority of the Sullivan Diamond Drills:

Simplicity and Strength  
of Design.

Rapidity of Work.

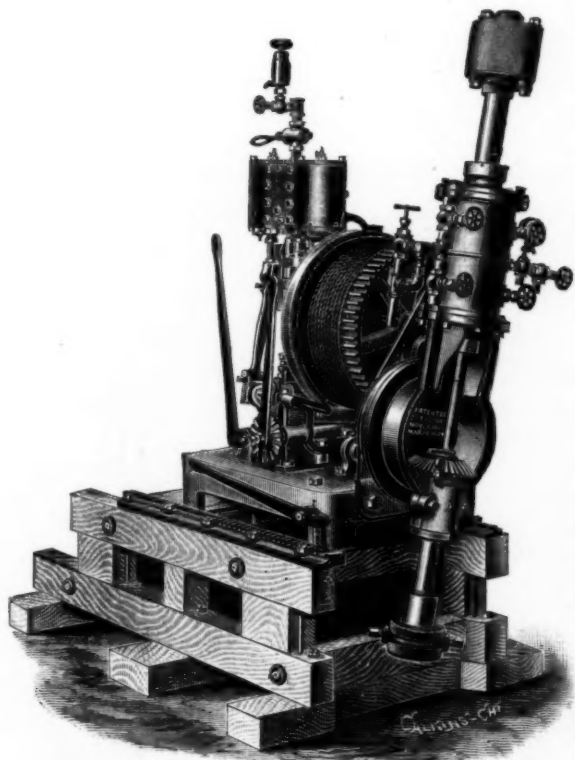
Economy  
in Wear of Carbon.

Accuracy of Results Ob-  
tained.

\*\*\*\*\*

These Drills are sold without  
restrictions. A full line of Drills  
and Drill Supplies carried in stock.  
Contracts taken for prospecting  
mineral lands and for all other  
kinds of Diamond Drill Work.  
Send for catalogue and prices.

\*\*\*\*\*



**DIAMOND PROSPECTING COMPANY,**  
**GENERAL AGENTS.**

EASTERN OFFICE,  
18 Broadway, N. Y.

22 W. LAKE STREET, CHICAGO, ILL.





# ROLLER AND DETACHABLE Chain Belting

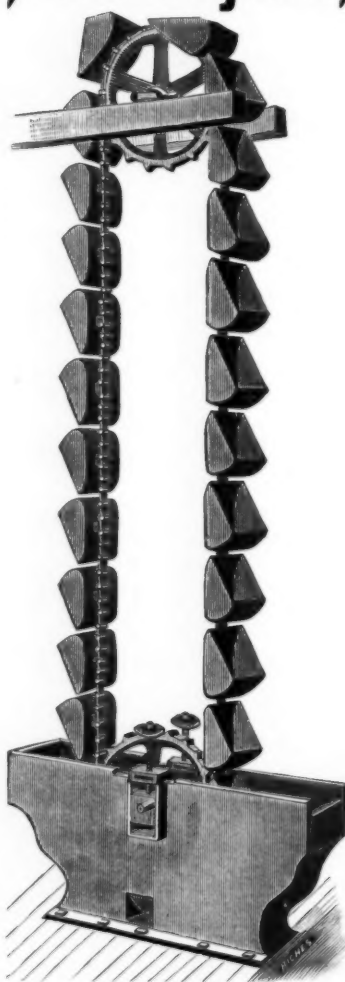
DESIGNED FOR  
Elevators, Conveyors, Carriers.

## LONG HAUL UPS.

For Rapid and Economical  
Handling of

GRAIN,  
SEEDS, MALT,  
COAL,  
ORES, STONE,  
BARRELS,  
BOXES, CLAY, etc.

Chain Elevators will not Stop  
or Clog, and are Positive  
and Effective.



## Drive Belts

FOR DRIVING

Traction Engines,  
Locomotives,  
SHAFTING,  
Mill Machines,  
Steamboats,  
Etc., Etc.

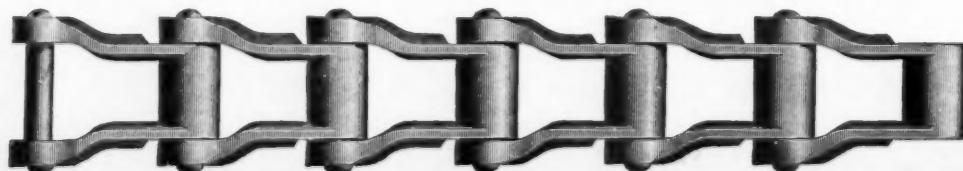
Estimates and Plans submitted  
for handling material in  
bulk or package.



ALSO MANUFACTURE THE  
**Legg Patented Coal Mining Machines and Power Coal Drills.**

Correspondence Solicited. Catalogue sent on application. Address

**The Jeffrey Manufacturing Company,**  
121 W. STATE STREET, COLUMBUS, OHIO.





# ALABAMA'S GREAT MINERAL WEALTH

SURROUNDS THE

## ★ CITY OF TALLADEGA, ★

Which, according to statistics, is the **MOST HEALTHFUL CITY IN ALABAMA**, and the County Seat of Talladega County.

THE CITY HAS A POPULATION OF 5,000, AND ITS POPULATION IS RAPIDLY INCREASING.

**T**ALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Talladega from Birmingham to Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

### TALLADEGA ONE OF THE BEST DISTRIBUTING POINTS IN THE STATE.

THE CITY HAS

## AN EXCELLENT SYSTEM OF COMMON GRADED SCHOOLS,

With a scholastic population of 500, and **THE MOST COMMODIOUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE.** The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

SYNODICAL FEMALE INSTITUTE, Property valued at \$50,000.

D. D. & B. INSTITUTE, Property valued at \$150,000.

BLIND INSTITUTE, (in course of construction,) property valued at \$150,000.

FOSTER COLLEGE, property valued at \$150,000.

No other city in Alabama has so many educational institutions and so many public buildings.

## ← TALLADEGA HAS THE MOST COMPLETE SYSTEM OF WATER WORKS IN THE STATE. →

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every day from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well macadamized and shaded with beautiful trees, and is well lighted with a **SUPERIOR QUALITY OF GAS.** Sixty fire plugs and forty gas lamps protect against fire and illuminate the streets.

**A LARGE FURNACE PLANT** gives employment to thousands of hands, and makes a high grade of chilled car-wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. **FOUR LARGE LUMBER MILLS**, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leaved yellow Pine of this country. **FOUR BRICK YARDS** are in active operation. A SASH, DOOR and BLIND FACTORY, a FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL, and various other industries are in successful operation, and the TALLADEGA ICE CO. cools the thrifty population with pure ice at 50 cents per hundred. Another large furnace plant will be completed within the next ten months. A Spoke and Handle Factory and many other industries are projected, with a view to early completion.

Taxable property has increased 100 per cent, within the past twelve months. The rate of taxation is limited in the city charter to half of one per cent., and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county in the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, yielding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance. Coal is within twenty miles by rail.

**THE TALLADEGA LAND & IMPROVEMENT CO.** owns 5,000 lots suitable for residences, business and manufacturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. **SPRING LAKE PARK** is owned by this company, and it is being made the most attractive resort in the State. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy climate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

The Talladega Land & Improvement Co.,      Talladega, Ala.



# ATHENS, East Tennessee

THE COMING

→ Iron and Manufacturing City of the South. ←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is **ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES**. The surrounding scenery is very fine. From the main avenue the whole valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the tallest peaks east of the Rockies being in full view. **FINE MINERAL SPRINGS** are adjacent and are popular summer resorts. The society of Athens is excellent. A cordial welcome is extended to all law-abiding people locating in the town. The **EDUCATIONAL FACILITIES** are good. Beside public and preparatory schools, Athens is the seat of **THE GRANT MEMORIAL UNIVERSITY**, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000. THE ATHENS WOOLEN MILLS, \$100,000.

THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.

FOUNDRY & MACHINE SHOPS, \$25,000.

FURNITURE WORKS, \$15,000.

FLOURING MILLS, \$20,000, etc.

500 men are now at work on the new railroad from Athens to the

## RICHEST IRON FIELDS IN THE SOUTH.

JUST EAST OF THE TOWN.

Only eight miles from Athens are **VEINS OF RED FOSSILIFEROUS ORE 11½ FEET THICK**, and 4 to 12 miles beyond are **THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH**. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Athens **UNSURPASSED SHIPPING FACILITIES**. The road under construction will penetrate large deposits of Tennessee Variegated Marble; also an Unopened Timbered Region, and will develop the

### *Largest Colored Slate Deposits in the United States.*

These quarries are now being opened, and are pronounced by experts Absolutely Inexhaustible, and equal in quality to the finest Vermont Colored Slate.

## The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

### \$500,000 IN NEW MANUFACTURING ENTERPRISES

At Athens, including a 100-ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150,000; Furniture Works, employing 200 men, cost \$100,000; Hotel, cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

### \$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites in order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices is beyond question a very fine investment.

## The Athens Mining & Manufacturing Company,



R. L. BRIGHT, President.

R. J. FISHER, Secy. and Genl. Manager.



# DECATUR, ALA.

Offers outside investors better inducements to locate than any other

 CITY IN THE SOUTH. 

AS A CITY OF

## Mammoth MANUFACTURING Enterprises,

She has few equals and no superiors in the South.

There have been located at Decatur in the last four months the following Industries :

THE DECATUR LAND, IMPROVEMENT & FURNACE COMPANY. Has 50,000 ACRES of Iron, Coal, Mineral and Timber LANDS  
The Louisville & Nashville Railway Car Works. Cost of Buildings, \$300,000.

Charcoal Company's plant, costing \$120,000.

A seventy-ton Charcoal Iron Furnace, costing \$190,000.

A one hundred-ton Blast Iron Furnace, costing \$225,000.

The Decatur Iron Bridge Construction Company; cost of plant, \$100,000.

The American Oak Extract Company's plant, costing \$60,000.

Ivens & Sons Steam Boiler and Engine Works, costing \$100,000.

Morse Cotton Compress plant, costing \$60,000.

Decatur Lumber Company, Saw and Planing Mills, costing \$50,000.

Berthard & Co., Sash, Door and Blind Factory, cost \$15,000.

The Decatur Street Railway Company.

The Telephone Company.

Brush Electric Light Company, cost \$10,000.

The Ironton Wheelbarrow Company, cost \$25,000.

Howland & Co's Water Works System, costing \$200,000.

Bleymeyer Artificial Ice Company, cost \$10,000.

Four Mammoth Brickyards.

Jones, Poley & Co's Lumber Yards.

The Hoosier Mills & Building Company.

The Gate City Sash & Door Company.

Arantz Bro's Mills and Lumber Yards.

Grant & Co's Furniture Factory.

Southern Lumber Company.

H. S. Freeman's Mills and Lumber Yards.

The Alabama Farmer's Friend Fence Machine Company.

The Decatur Artificial Stone Company.

Decatur Chain and Architectural Iron Works, capital \$100,000.

Natural Gas Company, capital \$200,000.

First National Bank, capital \$100,000.

The Exchange Bank of Decatur, capital \$100,000.

Merchants' Insurance Company, capital \$100,000.

Decatur Building Association, capital \$300,000.

Decatur Building Company, capital \$1,000,000.

Buchheit's Bottling Works.

Decatur Printing Company.

Two daily papers, three weekly papers.

Two hotels are building—one \$60,000, one \$300,000; the largest in the South.

Grand Opera House, \$100,000.

THERE ARE OTHER

## Mammoth Enterprises

Locating here, and contracts are being made with some of the most extensive industries in the United States.

Decatur is the Healthiest city in Alabama, the death rate among whites for 1886 being only 11 in 1,000.

## Decatur Land, Improvement & Furnace Company.

E. C. GORDON, President.

H. G. BOND, Vice-Prest. and Gen. Manager.

W. E. FOREST, Secretary.

This Company has been pre-eminently successful in promoting the interests of the city of Decatur.

CORRESPONDENCE SOLICITED WITH PARTIES SEEKING LOCATIONS.



# SHEFFIELD

◆ COLBERT COUNTY, ALA. ◆

## The Iron Manufacturing Center of the South.

**B**EING at the *head of navigation*, and on the *south bank* of the Tennessee river, Sheffield is the *natural outlet* for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best *distributing point* over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. *Four railroads* certain, and several others assured. *Principal shops of Memphis & Charleston Railroad* will be erected here pursuant to written contract. These will employ between *four hundred and five hundred mechanics*, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here.

### ◆ Five Blast Furnaces Now Under Construction, ◆

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that *iron can be manufactured more cheaply* at Sheffield than at Birmingham, and its *river transportation facilities* will enable Sheffield iron to reach the principal markets at a saving of from

**\$2.00 TO \$2.50 PER TON.**

A first-class semi-weekly newspaper, printed by steam, is regularly issued. Furniture Factory, Bottling Works, Bakery, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five-story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Contracts have been made for the early erection of Electric Light Works, Paint Works, Agricultural Implement and Machine Works and Cotton Compress. Large Stove Works, Machine Shops, additional Iron Blast Furnaces, an extensive Charcoal and Chemical Plant, a large Rolling Mill and other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

*Drainage excellent.* Splendid opening for men of *push and energy*. No "Old Foggy" element here.

No better point for *profitable investment*.

## ◆ Sites for Manufacturing Enterprises, ◆ And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; now, (August 21st, 1887,) by actual count, 2,583. Increase of population, 300 per cent. in eight months, and only limited by accommodations.

*Three years ago* the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

**LIMESTONE** of excellent quality for *fluxing iron* in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of *brown hematite iron ore* within twenty miles, along the lines of two Sheffield railroads. The Sheffield & Birmingham Railroad runs through the heart of the *Warrior Coal Fields*, which abound in first-class *coking, steam, gas and grate coal*. *Timber* is abundant and cheap.

The *Memphis & Charleston Railroad* and the *Sheffield & Birmingham Railroad* are now in operation into Sheffield. The *Louisville & Nashville Railroad Co.* is now extending its *Nashville, Florence and Sheffield* division, which will be completed to Sheffield before the close of the year 1887. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the *best combined river and railroad transportation center* in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. *More are needed.* For further information address

**ALFRED H. MOSES, Vice-Prest. and Manager**

**Sheffield Land, Iron & Coal Co., - Sheffield, Ala.**



## TRADE NOTES.

FRANK & CO., extensive manufacturers of wood-working machinery, at Buffalo, N. Y., are just out with their new catalogue and price-list for 1888. Many new machines and improvements are shown, and prices have been changed somewhat. A copy will be sent free to the readers of the MANUFACTURERS' RECORD upon application.

GEO. W. TIFFT, SONS & CO., Buffalo, N. Y., have several very good second-hand engines and boilers that will be sold at a sacrifice in order to make room for more stock. They have several splendid bargains for anyone wanting a large and medium-sized engine. Complete information can be had by writing to the concern.

THE Wainwright Manufacturing Co., of Boston, have recently built an erecting shop at their works at Medford, Mass., adding among other important and first-class tools, a 6-ton jib crane. They will soon be obliged to increase their force to 100 men, and report a long list of orders ahead.

THE Famous Manufacturing Co., of Quincy, Ill., manufacturers of the celebrated "Champion" baling presses, both lever and belt power, report that their trade is better this year than ever; that they are still running with a large force and continue to receive orders, which they are prepared to fill on short notice.

E. & B. HOLMES, of Buffalo, N. Y., well known all over the world as large manufacturers of stave and barrel machinery, are now manufacturing some of the highest grade of wood-working machinery that is made in this country. Their line of machines are all entirely new and embody the good features of older machines, while many new improvements can be seen for the first time. This new department of the business of E. & B. Holmes is under the management of Mr. F. H. Crafts, formerly of J. S. Graham & Co. and Goodell & Waters, and he is ably assisted by E. F. Beugler, who is superintendent. The name of E. & B. Holmes is so well and favorably known that it will be a guarantee that the wood-working machinery department will be fully up to the high grade of excellence that has marked the machinery of this concern.

RICHARD SNEDDON, superintendent, in charge of mine No. 4, Rock Springs, Wyo., U. P. R. R., reports that on October 10 last he, with the assistance of one man, with one Legg coal mining machine, carrying a three-foot cutter-bar, between the hours of 7 A. M. and 5.30 P. M., under cut in rooms averaging from 24 to 30 feet wide, 195 lineal feet face, 5 feet under, producing in this ten-foot seam 325 tons of coal. This is certainly an extraordinary day's work. Mr. Sneddon is to be congratulated for his accomplishment, and the Jeffrey Manufacturing Co., of Columbus, O., manufacturers of the Legg machines, for their success in bringing these machines to such high perfection.

THE Rice & Whiteacre Manufacturing Co., of Chicago, write us as follows: "We continue to have a very successful trade on our Kriebel engines, for stationary, marine and hoisting purposes, and also on our steam heaters and hot water boilers, for heating residences, and on our farm boilers, for use in steaming feed for stock, etc. Our export trade is growing, and among recent orders are one for a marine engine for shipment to British Honduras, and of a stationary engine and boiler to Zacatecas, Mexico. We are filling domestic orders from as far west as the Pacific Coast and also make frequent shipments to the Eastern States, in addition to filling orders in territory directly tributary to Chicago."

MESSRS. C. & G. COOPER & CO., of Mt. Vernon, Ohio, are now filling the following orders: South Bend Toy Manufacturing Co., South Bend, Ind., 150 horse-power Corliss engine; Moser & Wehrle Foundry Co., Newark, O., 100 horse-power Corliss engine and boilers; Bell, Cartwright & Co., Cleveland, O., 165 horse-power Corliss engine; Empire Lumber Co., Chattanooga, Tenn., 200 horse-power engine and boilers; Lieberman & Loverman, Nashville, Tenn., 160 horse-power Corliss engine; Gilbert Plow Works, Wichita, Kan., 100 horse-power engine and boilers; H. Leonard & Sons, Grand Rapids, Mich., 150 horse-power Corliss engine; Robert Schmoldt & Co., Beardstown, Ill., 150 horse-power Corliss engine and boilers; Potter's Mining and Milling Co., East Liverpool, O., 14x36-inch Corliss engine; Illinois Central R. R. Co., elevator, 165 horse-power Corliss engine and boilers; Phoenix Chair Co., Sheboygan, Wis., two 200 horse-power Corliss engines; Geneva Grape Sugar Co., Geneva, Ill., 200 horse-power Corliss engine; Bodie Bros., Chicago, Ill., 14x36-inch Corliss; Wichita Watch Works, Wichita, Kan., 60 horse-power Corliss engine and boilers; Equitable Pottery Co., Trenton, N. J., 50 horse-power Corliss engine and boiler; Sherrick, Schuler & Co., Jasper, Ind., 50 horse-power Corliss engine for flouring mill; Graham & Co., Rock Island Paper Mills, 150 horse-power; also numerous orders for slide-valve, stationary and portable engines, and saw mills of various sizes.

It is well known that the best results in the generation of steam can only be obtained from clean boilers, as the carbon and ashes that are deposited in the tubes by the combustion of fuel, not only retard the draft, but prevent a large portion of the heat from reaching the water, which occasions considerable loss, averaging at least 20 per cent. in the combustion of fuel. We herewith describe a device which is said to effectually meet this difficulty, and clean tubes in an expeditious and thorough manner. This consists of a head-piece of conical shape, with a pipe about 24 inches long attached to its base, and extended by a handle of turned wood. A short projection from the side of pipe receives the hose for the admission of steam. The head above mentioned is hollow, with a circular opening at the top or end; into this an adjustable tongue is fitted, so that the aperture around it can be increased or diminished at will. That part of the tongue inside the head is so constructed that the issuing steam is formed in four jets, and deflected against the sides of the tube, through which it drives with great force, carrying all the accumulations with it, and working as well on long pipes as short ones. With this device it is claimed that a boiler with 60 tubes can be cleaned in ten minutes, while it takes an hour by the old way. It is made in ten sizes, ranging from 1 to 20 inches diameter, "working sizes," and manufactured by Geo. G. McLoughlin Company, 137 Oliver street, Boston, Mass.

NICHOLSON & WATERMAN, of Providence, R. I., manufacturers of fine machinery, are rapidly extending their reputation by excellence and accuracy of their work. Besides their machines already noticed in these columns, they manufacture lathes, etc., and have besides in progress of construction 11 electric motors for the Bently Knight Electric Co., 115 Broadway, New York, 6 of which are for Fulton street, New York, 4 for Alleghany City, Pa., and one for Nantucket, R. I.

THE Shepard Hardware Co., of Buffalo, N. Y., have issued a very neat and valuable calendar, diary and memorandum combined. It is an excellent thing to have on one's desk.

MESSRS. MERCHANT & CO., the well-known tin plate importers, of Philadelphia, have issued a very handsome calendar for 1888.

PARTIES desiring to obtain information regarding the coal and timber lands of Alabama will do well to place themselves in communication with R. H. Neilson & Co., of Tuscaloosa, Ala., where any information concerning coal and timber will be given cheerfully. Mr. R. H. Neilson has been a constant prospector of lands in the South for many years, and his thorough knowledge of the vast resources of the State of Alabama has been gained after many years of travel and constant application. In another column will be found a card of this firm, whose references are first-class in every particular. Mr. Neilson will be glad to hear from any one contemplating investment in the State of Alabama.

MR. JAS. M. SWANK, the general manager of the American Iron & Steel Association, Philadelphia, has just completed a thorough revision of the directory to the iron and steel works of the United States. This edition of the directory is a cloth-bound book of 243 pages, and contains a complete list of all the blast furnaces, rolling mills, plate and sheet mills, cut-nail mills, open-hearth steel works, crucible steel works, Bessemer steel works, Clapp-Griffiths steel works, iron ore forges, bloomeries, wire-rod and wire mills, wire nail works, car-axle works, car-wheel works, car-builders, locomotive works, wrought iron pipe works and cast iron pipe works in the United States, with a description of all new iron and steel works completed or started up to December 1, 1887, and the most recent changes in size, ownership, postoffice and telegraph address, etc., in all other establishments. It is an invaluable book of reference for all business men who wish to correspond with iron and steel manufacturers, being in every respect a complete guide to the iron and steel works of the country. It is admirably arranged for ready reference to any establishment, the present edition containing an index to the names of firms and companies as well as to the names of works. The book is now ready for distribution, and will be sent by mail in a strong flat envelope to all who may order it, thus assuring its receipt in perfect condition. Price, \$3.00 (12s. 6d.) per copy.

HUGH R. GARVIN, of the firm of E. E. Garvin & Co., died at his residence in New York city, of heart disease, Wednesday, December 21, in the 52d year of his age, after an illness of six months. Mr. Garvin was the senior member of his firm, and entered with it into business about twenty years ago. He brought to it from New England where he learned his trade and worked as a journeyman for a number of years, a large amount of practical knowledge gained from that experience. This, aided by a clear insight into the wants of the times, enabled him to build and adapt certain lines of machinery to fill existing vacancies. The effort proved successful, improvements followed in succession, and business grew until their goods became standard in the market and known throughout the country. His death is much to be regretted, occurring at an age when his vigor should be yet unimpaired, with years of usefulness before him, and his family will have the sympathy of numerous friends whose respect was gained by upright character. We learn that the business will be continued as heretofore by his sons and those formerly associated with him, and who have for some time shared its responsibilities.

## Important.

When visiting New York city, save baggage express and carriage hire, and stop at the Grand Union Hotel, opposite Grand Central Depot. 600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern conveniences. Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first-class hotel in the city.

THE "American," of Boston, more than sustains its well-earned reputation as one of the best managed hotels in New England. Particular attention is paid to the comfort of guests, and a desire to please is apparent in all parts of the house.

THE BEST.—First-class accommodations at Palace Hotel, Cincinnati, \$2 and \$2.50 per day. Elegant rooms, fine table and all conveniences.

THE St. Charles Hotel, at Lowell, Mass., kept by Geo. R. Cushing, is the place for comfortable entertainment. Travelers will do well to keep it in mind.

## Speed on Southern Railroads.

The Queen & Crescent Route, running trains from Cincinnati to New Orleans and Shreveport, La., and passing through Chattanooga, Birmingham, Tuscaloosa, Meridian, Jackson and Vicksburg, has, with its "Queen & Crescent Limited Express," reduced the time between Cincinnati and New Orleans (827 miles) to twenty-five and a half hours. This train leaves Cincinnati at 7.55 A. M., and arrives at New Orleans at 9.30 next morning.

**WESTPHAL'S IMPROVED**  
REVOLVING  
**SCREW, BOLT AND SHOT CASES.**  
ADJUSTABLE FIRE BACKS  
AND LININGS FOR COOK STOVES.  
IRON STORM THRESHOLDS.  
SEND FOR ILLUSTRATED CIRCULARS.  
**SCHENCK'S ADJUSTABLE FIRE BACK CO.**  
94 MARKET STREET, CHICAGO.

THE KRIEBEL ENGINES  
UPRIGHT OR HORIZONTAL BOILERS  
2 TO 20 HORSEPOWER  
ADDRESS  
RICE & WHITEACRE MFG CO.  
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For the Latest Improved—  
**FAST FEEDING**  
**Planing Mill Machinery,**  
ADDRESS THE  
**Preble Machine Works Co.,**  
CHICAGO, ILL.

**VICTORIOUS EVERYWHERE.**  
COMBINED  
**Cotton Seed Huller, Corn and Cob Grinder.**  
WILL GRIND  
**CORN MEAL**  
Equal to Roller Stone.  
**Thousands in Use.**  
20 SIZES AND STYLES.  
EVERY MILL WARRANTED.  
Send for Catalogue and  
Price List.  
**Appleton Mfg. Co.**  
22 S. Canal St.,  
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**PERFORATED METAL**  
FOR  
**COTTON SEED OIL MILLS**  
RICE MILLS  
**MINING SCREENS &c**  
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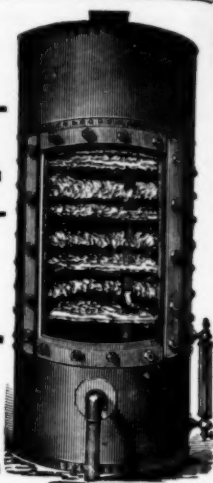
The Only Lime Extracting Heater That Will Prevent Scale in Steam Boilers.

Removing all impurities from the water before it enters the boiler.

Thoroughly Tested. Over 3,000 of Them in Daily Use.

This cut is a facsimile of the appearance of a No. 5 Heater at work on ordinary lime water, when the door was removed after the Heater had been running two weeks. Illustrated Catalogue Free.

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Side Bars.  
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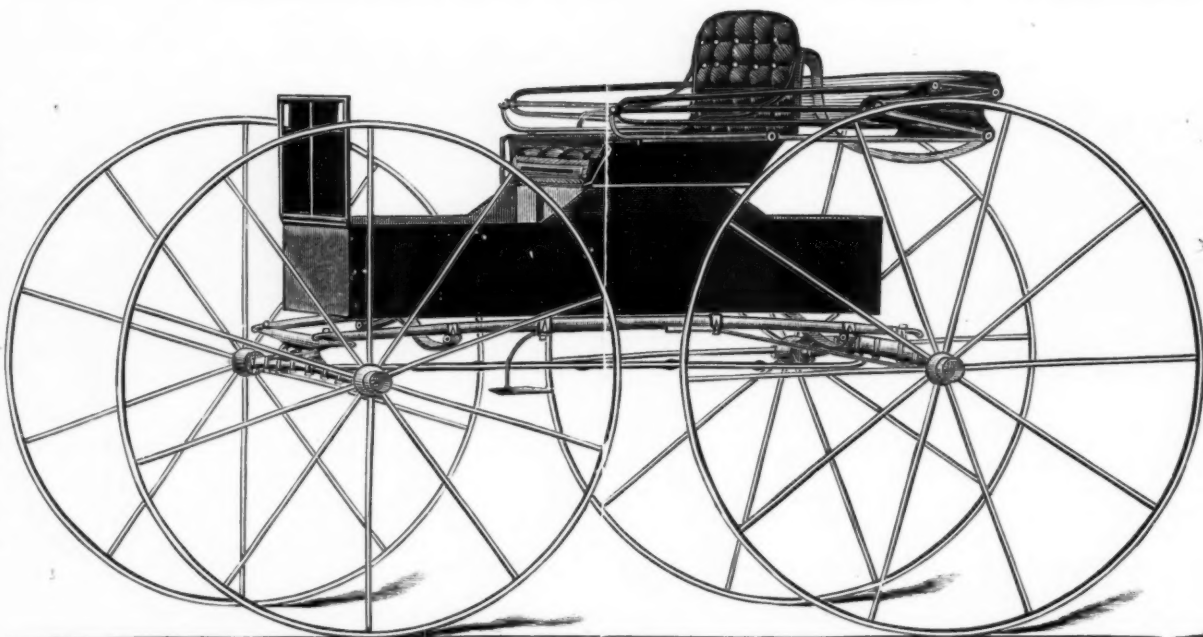
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JAS. SHELTON, TREASURER.

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**ENTERPRISE CARRIAGE MFG. CO.** 42 to 80 East Court Street,  
CINCINNATI, OHIO.

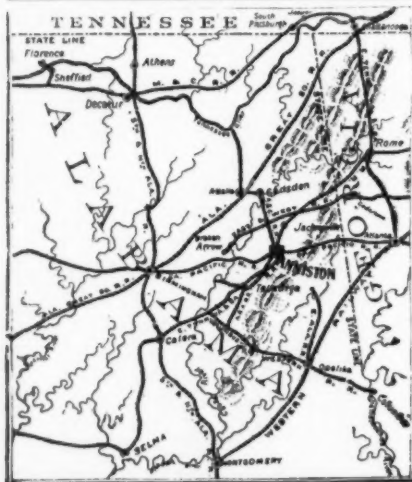
LARGE ASSORTMENT. FULL LINE.—  
Best Work in the United States for the Money  
CAPACITY 600 BUGGIES PER WEEK.



We want a Country Merchant or Dealer  
to act as our Agent in every County  
in the United States.

**Special Inducements to Dealers Buying Car-Load Lots.**

WRITE FOR TERMS AND FULL PARTICULARS. ILLUSTRATED CATALOGUE.



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**LAND AND LOAN ASSOCIATION.**  
Incorporated.

Commission Dealers in

**Lands, Stocks and Bonds.**

**CITY AND MINERAL PROPERTY**

A SPECIALTY.

Capital Stock

\$100,000

CORRESPONDENCE

SOLICITED.



**ANNISTON, ALA.**

REFERENCES:  
First National Bank, Anniston, Ala.  
Col. John M. McKleroy, Pres. Anniston City Land Co.

Buy "THE NEW SOUTH."

HANDSOMELY BOUND  
IN CLOTH. PRICE, \$2.50.

MANUFACTURERS' RECORD CO. Publishers Baltimore Maryland.



# High Grade Rotary Cutting Tools—For Working Wood.

ALL NEW DESIGNS. BEST QUALITY AND WORKMANSHIP.

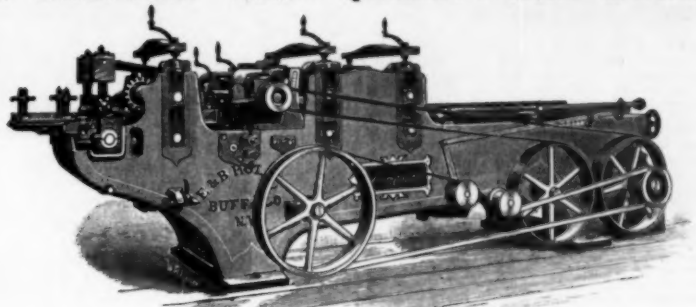
ALL **LATEST**

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BEST IMPROVEMENTS.

Nothing Cheap or Old.

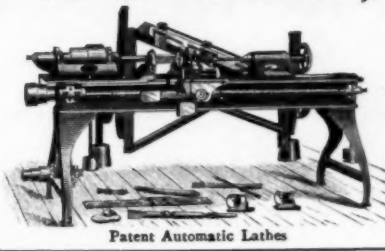
WRITE FOR  
DESCRIPTION AND ENGRAVINGS  
—TO—

E. & B. HOLMES, - - 59 Chicago Street, - - BUFFALO, N. Y.



Our New Band Re-Saw and Scroll Saw Combined, and our Circular Re-Saw are finding favor with all Wood-workers.

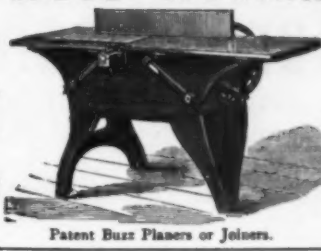
## FRANK H. CLEMENT, Manufacturer of WOOD-WORKING MACHINERY.



Patent Automatic Lathes

—FOR—  
Furniture, Chairs, Cas-  
kets, Carriages,  
Sleighs, &c. ★  
FIRST-CLASS WORKMANSHIP.  
SEND FOR CATALOGUE.

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Patent Buzz Planers or Joiners.



No. 2 Saw Bench.

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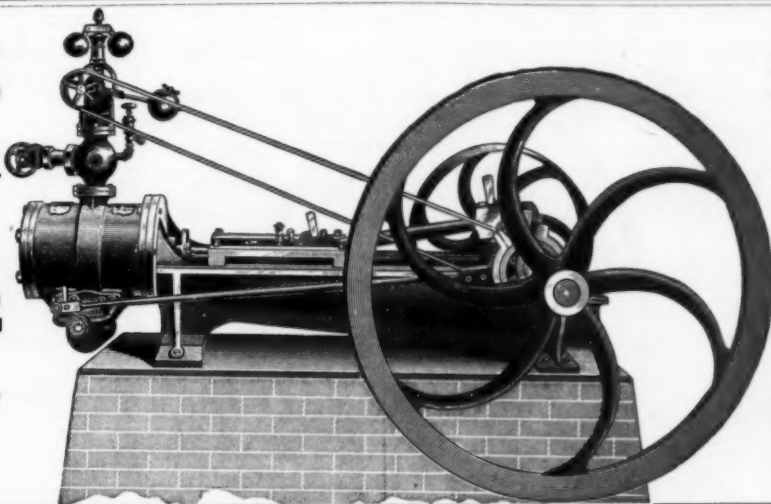
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In sizes from 4 to 50 H. P.,  
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The DYNAMO of this Company is AUTOMATIC in its regulation, and will maintain a UNIFORM LIGHT with ALL or ANY PORTION of the lights in Circuit. Our LAMP will not BLACKEN and will MAINTAIN its CANDLE POWER during its Guaranteed life. Plans and Estimates Furnished for all kinds of Incandescent Lighting. ESTIMATES FURNISHED FOR THE THOMSON-HOUSTON SYSTEM OF ARC LIGHTING.

## FOR SALE.

1 36-in. 1 Beater Breaker Lapper.  
1 36-in. 1 Beater Finisher Evener. } English.  
1 36-in. 3 Beater Kitson, with preparator.  
3 36-in. 3 Beater, Whiting's.  
5 36-in. 2 Beater, Whiting's.  
5 30-in. 2 & 3 Beater, Whiting's.  
50 36-in. Welman Stripper, Whiting's Cards.  
50 36-in. Welman Stripper, Saco Water Power.  
80 30-in. Welman Stripper, Whiting's.

50 12-6, 10-3, 9-4 1/2 Slubber's, different makes.  
25 7 1-3/4, 6-3 Speeders.  
100 Spinning Frames, 1 1/2 in., 1 3/4 in., 2 in. & 2 1/2 Ring,  
common, Spindle Taper, Rabbit Sawyer Spindle.  
50 Twisters, 1 1/2 in., 1 3/4 in., 2 in., 2 1/2, 2 3/4 in., 3 in.,  
3 1/2 Ring.  
50 Spoolers of different makes.  
16 Carpenter Reels.

All this machinery is first-class. For further particulars apply to

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PROVIDENCE, R. I.

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Office and Works:

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**VALVES**  
Double and Single Gate, 4 inch to  
48 inch, outside and inside  
screws, indicators, etc., for  
Steam, Water, Oil,  
Send for Circular.



Iron Fire Hydrants, Yard and Wash Hydrants, Check and Foot Valves

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SECTION OF COPPER WIRE-SEWED LIGHT DOUBLE BELTING.

We Manufacture  
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Also the "Hercules" Lacing  
The Hercules is me-  
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all the sta-  
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chanically made; is a buffed  
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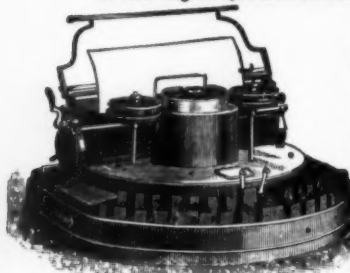


CONCORD, N. H., U. S. A.



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Is the Highest Achievement yet reached in Writing Machines.



Although not so well known as its predecessors, it has at once sprung into popular favor, and the manufacturers are taxed to supply the demand. It has been on the market long enough to thoroughly test its wearing qualities, and the judgment of all who have used it is that it is the "me plus ultra" of Type Writers.

Two different styles of type accompany each machine, and other styles can be instantly inserted. The manufacturers of the Hammond solicit business solely upon the ground of superior merit in their particular instrument. An examination, trial and test of the Hammond is solicited by all intending purchasers of Type Writers.

**NOTED FOR** speed, absolutely perfect alignment, uniform impression, changeable type, is light and portable, writes on any width or length of paper, writes on postals, has from 800 to 1,500 less pieces than any other machine, and its work is always in sight. Send for circulars and specimens of its work to

**HAMMOND TYPE WRITER CO.**

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Baltimore Office, No. 15 N. Charles St.

Atlanta Office, No. 21 Alabama St.

"The Old and Only Reliable." LATEST IMPROVED FORT WAYNE

## Western Washer.

SOLD ENTIRELY ON ITS MERITS.

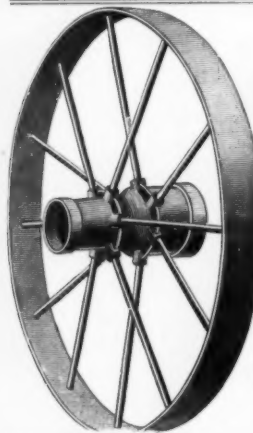
We have furnished these machines to an appreciating public for the past twelve years, during which time the demand for them has increased steadily and rapidly.

**Each Machine is Warranted to give Perfect Satisfaction.**

We want this machine represented in every city and town, and will give liberal discounts to dealers or agents and will guarantee the sale and satisfaction of them. Price, No. 1, Family Size, \$8; No. 2, Large Family, \$9; No. 3, Hotel Size, \$10. Write for catalogue and terms to

**THE HORTON MANUFACTURING CO.**

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**THE QUINCY Metal Wheels**  
FOR ALL PURPOSES.

Conceded the best, and used by the leading manufacturers in the United States. The only wheel in which the spokes are connected to other parts of the wheel with enlarged tenons, formed in place by heavy pressure and while cold. Send for descriptive catalogue, and mention this paper.

**Quincy Metal Wheel Co.**

QUINCY, ILL.



**THE HOWELL PATENT Suspension Iron and Steel**

## WHEEL.



FOR Wheelbarrows, Trucks, etc.  
Lightest, Strongest and Cheapest Wheel in the Market.

Based on new and scientific principles. Highly endorsed. Write for description and prices to the

**HOWELL WHEEL CO.**

COVINGTON, KY.

Mention this paper.



## CHAMPION JUNIOR.

SELECTED LUMBER WHEELBARROW.

—Soft-wood Handles, Hard-wood Legs and Braces. Strictly Bolted.—



It is the same size, and contains all the elements of strength in the Champion. Its cheapness is made by not bending legs and braces, and by using a less expensive timber in its manufacture, but timber of ample strength and free from defects. The Junior is the choice of all people who prefer a larger wheel and a stronger frame than the common barrow, at a small advance in cost.

**BRYAN MANUFACTURING CO., BRYAN, OHIO.**

## Covert Manufacturing Company.



TRADE MARK.



The Greatest Emporium in the World for the best Snaps, Chain, Rope and Web Goods, &c., manufactured, is the celebrated works of the

**Covert Manufacturing Co. West Troy, N.Y.**

For Sale by all Jobbers Handling this Class of Goods.

## \* COLT'S NEW LIGHTNING \*

## 22 Calibre Rim Fire Magazine Rifle.



THE MOST PERFECT LITTLE GUN OF THE AGE

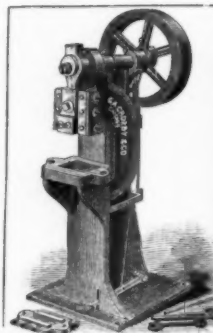
For Small Game, Gallery, Target Practice and Snap Shooting, it is unrivaled. It is light, durable and safe. Weight 5½ pounds. The ammunition is cheap—100 shots

for 50 cents. For circulars giving full description and price, also for "IDEAL RELOADING TOOLS," address

## IDEAL MANUFACTURING CO.

P. O. BOX 1064, C.

NEW HAVEN, CONN.



**G.A. CROSBY & CO.**  
Manufacturers of  
**PRESSES, DIES**  
**SPECIAL MACHINERY**  
**SHEET METAL WORKERS**  
259, 261 & 263 Randolph St., Chicago, Ill.



## NIAGARA STAMPING & TOOL CO.

Manufacturers of

**TINNERS' MACHINES and TOOLS,**

Squaring Shears, Press Dies, &c.

FOR WORKING SHEET METAL.

Fruit Can Dies and Tools.

**CANNERS' OUTFITS.**

OFFICE AND WORKS:

Cor. Randall and Superior Sts., BUFFALO, N. Y.

Write for Catalogue and Price List, and Mention this Paper

## D. SAUNDERS' SONS

MANUFACTURERS OF

Pipe Cutting and Threading Machines,

For Pipe Mill and Steam Fitters' Use.

**Tapping Machines**

For Steam Fitting. Also,

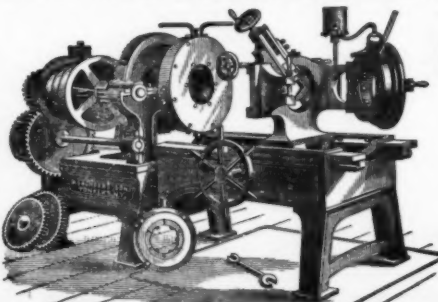
**STEAM AND GAS FITTERS**

**HAND TOOLS,**

Atherton Street.

Send for Catalogue B.

**YONKERS, N. Y.**



SEND FOR CIRCULARS.



**Baltimore WHOLESALE Prices.**

**BORING MACHINES—WITHOUT AUGERS.**

Sweet & Clark upright, 2.50 angular	3.00	net
Lawrence " 3.00	3.50	net
Hobbs " 3.00	3.50	net

903 & 905 N. Main Street, ST. LOUIS, MO.

Logan & Strobridge.....	dis 45 5
Enterprise Mfg. Co.....	dis 45 5



## Cincinnati Iron Market Report.

Specially reported by ROGERS, BROWN & Co., Pig  
Iron Commission.

CINCINNATI, December 26, 1887.

While the market generally is not active, the aggregate of foundry iron orders has been larger the past week than for a long time previous. Negotiations referred to in last report have resulted in some large contracts for deliveries through the first six months of next year, and in some cases longer. Coming after the period of light buying, these orders have been eagerly competed for by the furnace companies, and some cutting of prices has been done. Still heavier transactions have been figured on, but buyers concluded to wait until next month. The very considerable decrease in production, without any corresponding decrease in consumption is likely to preserve the balance and prevent accumulation of stocks. Prices are barely netting more than cost to Northern furnaces, and it seems impossible to reduce the cost limit. We quote for cash f. o. b. Cincinnati:

Ref. Bar Iron, 1 to 6x7½ to 1.....	\$ .10	\$ .10	.40C
" " " 1 to 4½x7½ to 1.....	" "	".10B	.40C
" " " ¾ to 1¼, round and .....	" "	" "	" "
Square.....	" "	.80D	.30C
Hoop Iron, 1¼ wide and upward.....	" "	.50	.30C
Band Iron, from 1¼ to 6 in. wide....	" "	.40C	.93C
Horseshoe Iron.....	" "	3	3½C
Norway Nail Rod.....	" "	3	3½C
Black Diamond Cast Steel.....	" "	8	3
Machinery Steel.....	" "	3	3
Spring Steel.....	" "	8	4½C
Common Horse Nails.....	" "	8	9 C
Railroad Spikes, 5½x16.....	" "	8	3½C
Spring Bolter.....	" "	4	4
Iron Boiler Plate.....	" "	12	4½C
Boiler Tubes.....	" "		50% off list

[illegible]

## Louisville Iron Market.

Specially reported by Gmo. H. HULL & Co., Commission Merchants for the sale of Hot and Cold Blast Pig Iron.

LOUISVILLE, Ky., Dec. 26, 1887.

No improvement in the market has developed since the date of our last report, nor was such improvement expected. Buyers are still continuing to defer their purchases until next year. There seems to have been much diversity of opinion on the part of furnaces as to the policy of selling ahead. Some furnaces have sold the entire product of certain grades for the whole of next year, while others have informally declined, and are still declining to quote for deliveries extending over two months. Good brands of mill iron are still scarce and there is not a very large supply of foundry grades at furnaces. Inquiries for car wheel irons are becoming more frequent, and some good sales have been made. Prices remain unchanged:

## FIG. 180N\*

The steel rail makers propose to adopt the heroic treatment and shut down unless buyers place orders at \$31.50 to \$32. So it is given out, but the buyers are not at all concerned at this threat. A few have come in and placed orders—some 40,000 tons—and there are negotiations pending for some 200,000 tons. Cost is increasing. Wages at some mills have been crowded up a little, and things look unfavorable for early business on a large scale. Makers want \$33 to \$34. Bessemer furnaces are still at work, and an immense production will naturally weaken prices, unless another quality of iron should be made. Large orders have been placed for foreign plates and structural iron, and a local firm has the agency for a large Scotch manufacturing firm. Iron plates are 2.25 for tank, 2.40 for shell, 3.40 for flange, and a good deal of business is in sight of Pennsylvania mills. Merchant bars are 2 cents; medium 1.85 to 1.90. Car iron is being purchased in considerable quantities. The pig iron situation has not changed. There is a scarcity of good brands, and prices are firm for early deliveries, but weaker to the extent of 25 to 50 cents on ordinary foundries. Forge is quiet at \$16.50 to \$17.25. There are no signs of a falling off in consumption. Nails continue dull at \$1.90 to \$2.10. Old material is slightly firmer at \$22.50 to \$23. No. 1 scrap is \$21 to \$22, and the tendency is upwards.

	FIG IRON	
Southern Coke, No. 1 Foundry.....	\$20 00	\$20 50
" " " " " " " "	18 00	19 50
" " " " " " " "	18 00	19 00
Hanging Rock Coke, No. 1 Foundry.....	19 50	20 50
" " " " " " " " Charcoal Foundry .....	20 50	21 50
Southern Charcoal, No. 1 Foundry .....	17 50	19 00
Silver Gray, different grades .....	17 50	19 00
Southern Coke, No. 1 Mill, Neutral.....	17 50	18 50
" " " " " " " " " " " "	16 75	17 75
" " " " " " " " Cold Short.....	16 75	17 75
Southern Charcoal, No. 1 Mill.....	(—)	(—)
White and Mottled, different grades.....	23 00	26 00
Southern Car Wheel standard brands.....	24 00	26 00
" " " " other brands.....	22 00	24 00
Hanging Rock Cold Blast.....	24 00	26 00
" " Warm " " " " " " " " " " " "	21 00	23 00

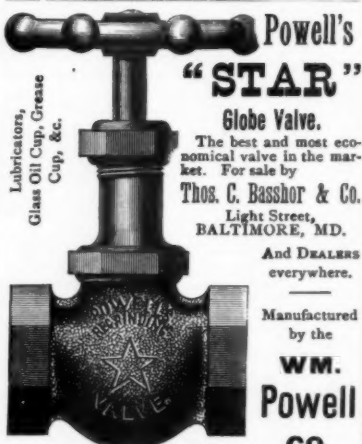
### Chicago Iron Market.

CHICAGO, Dec. 26, 1887.

There has been considerable stirring about in pig iron circles the last week, but it has not materialized in the form of very large orders. A few orders of 500 and 600 tons are all of any size that are reported. Some much heavier business was under discussion, but has been delayed. The feeling of buyers generally is to wait and see what January will bring forth. Southern irons are beginning to compete more actively for Chicago business. Heavy buying of L. S. C. C. iron is looked for in January. We quote for cash f. o. b. cars Chicago from 50 cents to \$1 per ton lower than last week.

CINCINNATI, OHIO.

The most durable, economical and best in the world. The only machine which makes its full rated capacity of chemically pure ice in hot climates. Send for circulars.



**UNION BRASS WORKS,**  
50, 52 & 54 Plum Street, CINCINNATI, OHIO.

We offer the above at low prices for cash or on easy terms or Car Trust; or will exchange for good securities. Whether you wish to buy, sell or trade, it will pay you to write us for full particulars.

**THE NEW YORK EQUIPMENT CO.**  
Successors to Walkley & Co.  
**10 WALL STREET, NEW YORK.**  
JAMES IRVING, Pres. L. V. WALKLEY, Secy.

One Gray & Wood Planer, made by the S. A. Wood's Machine Co.  
One Six-Rolled 24-inch Planer and Matcher, Goodell & Waters.  
One 20-inch Planer and Matcher, Frank & Co.  
Two Sweepstake Planers and Matchers, Rowley & Hermance.

Also a full line of new and improved wood-working Machines. Correspondence solicited.  
**Williamsport Machine Co., Limited,**  
Cor. West Third & West Streets, Williamsport, Pa.

One No. o Buffalo Forge, with water tank for power; new.  
 (One No. 1 Keystone Forge; second hand.  
 Two No. 1. Delamater Pressure Pumps, 1-inch suction, 1½-inch discharge; new.  
 One No. 5 Blake Pressure Pump, ¾-inch suction, 1-inch discharge; second hand.  
 One Power Boiler Plate Punch, punches ¾-inch hole, second hand.  
 One 32-in. by 32-in. by 9 ft. Bed Planer; second hand.  
 One 12-inch Shaper, New Haven Co.'s make; used one month.  
 Complete Steam Laundry Outfit; used 3 months.  
 One No. 6 Friedman Injector.  
 One 5 horse power Locomotive Engine.  
 One Combined Engine and Boiler, 3 horse power.  
 One 4 horse power Vertical Engine.  
 One 5 horse power Vertical Engine.  
 One 8 horse power Vertical Engine.  
 One 12 horse power Vertical Engine.  
 One 6 horse power Vertical Marine Engine.  
 One 15 horse power Horizontal Engine and Boiler.  
 One 25 h. p. Portable Engine and Boiler, on skids.  
 One 8 horse power Horizontal Engine and Vertical Boiler combined.  
 One 8 horse power Yacht Boiler.  
 One 12 horse power Vertical Boiler.  
 One 15 h. p. Vertical Boiler, with submerged tubes.  
 One 20 horse power Stationary Tubular Boiler.  
 One 20 to 40 horse power Automatic Engine.  
 One lot of Gold Min'g Mach'y; used but a short time.  
 One latest patent Quilter; second hand.  
 One Beater and Lapper; second hand.  
 One 18-inch Pinner; second hand.  
 Four 31-inch Cotton Cards; second-hand.

**MACHINIST AND MILL SUPPLIES.**

**WM. C. CODD,**  
 2010 and 2012 Alceanna Street,  
 BALTIMORE, MD.

A 100 horse-power Stationary Engine and two Stationary Boilers, together with fronts, grates, castings and trimmings. Said Engine and Boilers have been used, but have been thoroughly rebuilt, and are in A. No. 1 order, and will be sold very low; or can attach a Mammoth Saw Mill and sell all low, and take part in good yellow pine lumber. Apply to

**RICHMOND MACHINE WORKS.**  
RICHMOND, IND.

**FOR SALE-MACHINERY.**

**PAVLE MACHINERY.**  
No. 10 Bliss Press, same as new.  
No. 3 Garvin Miller, same as new.  
Garvin Tapping Machine, same as new.  
No. 5 Emery Grinder, same as new.  
12-in. Double Table Shaping Machine, new.  
1 16-in. Steptoe double geared Shaper, new.  
1 15-in. Steptoe Crank Shaper, new.  
10-in. Shaper, Boyson & Plummer, new.  
Planer, 20x4, Lincoln, second-hand.  
Planer, 24x6, Pond, new. Planer, 30x8, Pond, new.  
Planer, 24x5, Pond, new.  
No. 1 Garvin 2-Spindle Drill, good order.  
25-in. B. G. S. F. Upright Drill, new.  
28-in. " " " "  
30-in. " " " "  
30-in. Upright Drill, B. G. S. F. "  
32-in. B. G. S. F. Drills, new.  
38-in. B. G. S. F. Drills, new.  
Engine Lathe, 32x16, new.  
Engine Lathe, 28x16, new. [as new.  
Gage Turret Lathe, complete with slide rest, same  
Gage Hand Lathe, excellent order.  
Engine Lathe, 28x16, new. Engine Lathe, 28x16, new.  
Engine Lathe, 28x16, new. [hand  
1 Engine Lathe, 30 in x 8 ft., compound rest, second-  
1 Leonard & Clark Lathe, 16x8.  
1 Engine Lathe, 16 in x 7 ft., second-hand.  
Engine Lathe, 23 in x 12 in., new.  
Engine Lathe, 15 in x 6 ft., B. G. Screw-Cutting.  
Engine Lathe, 16 x 6 ft., power cross-feed, new.  
Engine Lathe, 18 x 8 ft., power cross-feed and  
compound rest, new.  
Engine Lathe, 30 in x 8 ft., power cross-feed and  
compound rest, new. [hand.  
21-in. x 5 ft. B. G. Hand Lathe, with Chucks, second  
15-in. Double Cur'd Off Machine, wood, Jennison & Co.  
1/4-in. Wells Bolt Cutter.  
Engine Lathe, 14x6. Engine Lathe, 12x6.  
Hand Lathe, 12x6.  
**Cold-Rolled Shaffing, Hangers, Pulleys, &c.**  
Agents for I. W. Pond Machine Co. Planers;  
Currier & Snyder Drills; Bickford Drill Co.  
McCMahon & Co. Lathes; Fay & Scott Engine Lathes;  
John Steptoe & Co. Shapers.

**FRASER & ARCHER, 121 CHAMBERS STREET, N. Y.**

**Second-hand Machinery in Good Order.  
FOR SALE CHEAP.**

Engine Lathe, 30 in. x 20 ft.  
Engine Lathe, 36 in. x 24 ft. Triple Geared.  
" 36 in. x 27 ft. Engine Lathe 18 in. x 3 ft.  
" each 24 in. x 20 in. and 24 ft.  
" 24 in. x 10 ft. bed. Fifield.  
" 30 in. x 25 ft.  
" 24 in. x 15 and 16 ft.  
" 28 in. x 20 ft.  
" 22 in. x 10 and 12 ft.  
each 16 in. x 6, 8 and 10 ft.  
" 14 in. x 6 ft.  
" 12 in. x 5 ft.  
" 15 in. x 6 ft.  
" 11 in. x 4 ft. and 5 ft.  
" 10 in. x 3 1/2 ft. Foot power.  
Axle Lathe. Bement & Son.  
Brass Turret Lathe.  
ea Planer, 24 in. x 24 in. x 5 and 8 ft.  
" 30 in. x 30 in. x 7 ft.  
Planer, 36 in. x 36 in. x 9 ft.  
" 34 in. x 26 in. x 11 ft.  
Shaper, 6-in stroke. 1 1/2-in. Shaper, two tables.  
" each 12, 15, 20 and 26 in. stroke.  
Crank Planer, 6 Lincoln Pat No. 2 Millers.  
each 3 and 6 Spindle Gang Drill.  
each Nos. 1 and 2 Screw Machines. Wire Feed.  
Pratt & Whitney. Good as new.  
375-lb Drop Hammer. Beecher & Peck.  
60-lb. Vertical Hammer.  
No. 53 Ferracute Press. 1 Nut-Facing Machine.  
Foot Presses, assorted. 8 Power Presses, assorted.  
Punching and Shearing Machines, assorted.  
Return Tubular Boilers, 25 H.-P.  
National Hot Cutter, sizes, 1/4 in. to 1 in.  
Box Cutter, Sizes, 1/4 in. to 2 in. included. Wm  
Sellers & Co.  
each Nos. 2 & 3 Garvin Hand Millers. Good as new.  
Horizontal Engine each 25 and 45 H.-P.  
ea 4 and 8 H. P. Portable Engine.  
Slotter 13 in. stroke.  
48-in. Boring and Turning Mill. Pond.  
2-Spindle Profiling Machine.  
Horizontal Boring Machine, 36 in. x 6 ft.  
No. 3 1/2 Tilters & Parkers.  
Also full line of New Machinery  
New York Agency TAYLOR MFG. CO., Engines,  
oilors, &c. Correspondence solicited.  
PRENTISS TOOL AND SUPPLY CO.  
P. O. Box 1402. No. 42 Dev St. New York City.

# SAWS

Four Gold Medals at New Orleans,  
1885.

Circular Saws, solid and inserted point. Crescent Ground Cross Cut Saws, Gang, Mill, Mulay and Drag Saws, Milled Tooth Band Saws.

Planer Knives, Paper Cutting Knives, Leather Splitting Knives. Knives made to any pattern furnished.

**Simonds Mfg. Co.**  
Cor. Canal and Washington Sts.  
Chicago, Ill.

# MACHINE



## St. Louis Iron Market.

Specially reported by ROGERS, BROWN & Co., Gay Building, 304 N. 3rd street, St. Louis. W. H. SHIELDS, Manager.

ST. LOUIS, Dec. 26, 1887.

This market usually blows either hot or cold. From a period of dullness amounting to stagnation, we have changed to a period of active buying. The orders placed since last report would add up several thousand tons, and those now under negotiations several thousand more. These are mostly contracts running from 3 to 6 and 9 months into next year. Prices are pretty well maintained, but large buyers have been able to get some concessions. We quote for cash:

HOT-BLAST CHARCOAL.	
Missouri.....	\$20 00@21 00
Southern.....	20 00@21 00
COKE AND COAL.	
Southern No. 1.....	20 00@21 00
Southern No. 2.....	17 50@18 50
Ohio Softeners.....	20 00@21 00
MILL IRONS.	
Missouri.....	19 00@19 50
Southern No. 1.....	17 50@18 50
Southern No. 2.....	17 50@18 50
CAR-WHEEL AND MALLEABLE IRON.	
Southern.....	22 00@25 00
Lake Superior.....	22 00@23 00
SCRAP, &c.	
Old rails.....	— 6 15
Old wheels.....	— 6 15
Connellsville Coke (Frick's).....	— 6 15

## Chattanooga Iron Market.

Specially reported by LOWE & TUCKER, Brokers and Commission.

CHATTANOOGA, TENN., Dec. 26, 1887.

The general situation is materially unchanged in all lines of trade. Of course, it being near the close of the year, much restriction is being made in order to get accounts as near squared up as possible, but so far as appearances go there is every prospect of even greater activity in all lines, as soon as matters get into shape, after the first of the year. So far as appearances now indicate, the coming year is going to be of even greater activity all through the South than the year that is about closing. There is certainly a much larger amount of building going to be done, and so far as the new enterprises that have been inaugurated there is no letting down in any of them, but all are being pushed ahead as rapidly as possible, and new ones are continually being started. Pig iron is holding its own firmly, and there is not a single furnace now running in the South but what are anticipating a successful run during the entire year. Prices as based upon actual sales new range from \$18 to \$18.50 for No. 1, and about \$1 less as the grades go down, or 2 per cent. off if cash in ten days.

## Baltimore Stock Exchange Quotations.

Reported by ALEXANDER BROWN & SONS, Bankers, Baltimore.

BALTIMORE, Dec. 28, 1887.

	BID.	ASKED.
Virginia 6's Consols C.....	41	41
Virginia 3-4-5 10-40's.....	37	38
Virginia 3's, new.....	66	66 1/2
Virginia Consol Coupons.....	87 1/2	88 1/2
W. & A. Aug. 6's.....	117	118
Atlanta & Char. 1st. 7's.....	118	120
Atlanta & Char. Income 6's.....	99	100
Col. & Green. 1st. 6's.....	103 1/2	104 1/2
Col. & Green. 2d. 6's.....	73 1/2	75
Va. Midland. 2d. 6's.....	116	118
Va. Midland. 3d 5-6.....	108	110
Va. Midland. 4th. 3-4-5.....	70	80
Va. Midland. 5th 5's.....	98 1/2	100
Char., C. & Aug. 2d. 7's.....	110	112
West Va. Central. 1st. 6's.....	103 1/2	105
Os. Pacific 1st. 6's.....	108	110 1/2
Cape Fear & Y. Valley 6's.....	90 1/2	92 1/2

FOR boiler fronts there is nothing equal to Dixon's Silica-Graphite Paint. It is a beautiful black, and will not burn off. Boiler fronts painted three years ago are as good to-day as when painted. Address Jos. Dixon Crucible Co., Jersey City, N. J. †

TO MAKE BRIGHT, SMOOTH CASTINGS USE



**RADIANT FACINGS**

Also all other kinds of FACINGS AND BACKINGS, FITZMORRIS & SMITH CO. CINCINNATI, OHIO.

## BLACKSMITHS' TOOLS.

**XXX Post Drill**

Weight, 100 lbs. Drills from 1/4 to 1-inch hole. List, \$28. Special price to February 1, 1888, \$15.

**NEW Model Bench Drill.**

10,000 sold. List price \$21. Special price to February 1, 1888, \$14.50. Address for terms and catalogues,

**Manner Drill Man'g Co.**  
ROCHESTER, N. Y.

## STEEL RAILS

COMPLETE OUT-FIT FOR

**Logging, Mining and Plantation**

RAIL AND TRAM ROADS.

Light Sections Rails and Spikes in stock.

Locomotives, Logging Cars, etc.

NEW AND SECOND HAND.

**HUMPHREYS & SAYCE,**  
OFFICE NO. 1 BROADWAY, N. Y.

**CHAMPION BALING PRESSES.**

Baleonet to wotton Uses no Easy on man an hour. Load 10 down and beat. to 15 tons in car.



Continual Send for Circulars.

Address, Famous Manufact'g Co., Quincy, Ill.

**WANTED.** A MACHINIST. One who is sober and capable of soliciting and making estimates on work, also who can do general machine work in shop. Permanent situation to the right man. Address

**Metcalf Manufacturing Co.**  
Hopkinsville, Ky.

## Wanted!

A COMPETENT SALESMAN who thoroughly understands the mill and factory supply business to travel in the South and Southwest. State references and salary expected. Address W. & G., CARE MANUFACTURERS' RECORD.

Subscribe to the MANUFACTURERS' RECORD. Price \$3.00 a year, or six months for \$1.50.

## ARCHITECTURAL

## Sheet Metal Work

ORNAMENTS, STATUARY,

And SPUNWORK IN

## BRASS, COPPER &amp; ZINC

Galvanized Iron Cornices, Window Caps, Finials, Etc.

—Manufactured by—

**BAKEWELL & MULLINS, Salem, O.**

## SYRACUSE TWIST DRILL CO., SYRACUSE, N. Y., U. S. A.

## Manufacturers of TWIST DRILL BITS

—FOR WOOD AND METAL—



Measuring Machines, Comparators, Reamers, Drill Chucks, Tool Holders, and Special Tools. Send for Illustrated Catalogue and Prices.

## The STANDARD TOOL CO.

—Cleveland, Ohio,—

MANUFACTURERS OF INCREASE TWIST DRILLS, Etc.,

TAPER SHANK DRILLS,

Straight Shank Drills,

MACHINE BIT DRILLS,

Bit Stock Drills,

SOCKETS,

Hand and Shell

REAMERS,

Standard Gauges,

Milling Cutters

and Special Tools,

MORSE TAPER REAMERS.

—Standard Patent—

TWIST DRILL GRINDING MACHINE

New York Office, 33 Chambers St.

**SHULTZ BELTING**

IT BEATS THE EARTH AND MAKES THE MOON SPIN LIKE A TOP.

MANUFACTURERS OF

**Our BELTING**

is tanned on the surfaces only; the

**INTERIOR IS RAW HIDE.**

Send for Our Valuable Book for Engineers and Belt Users. Free.

Agents in all Cities. Send for Trial Belt.

Address SHULTZ BELTING CO., St. Louis, Mo.

## FORSTER'S STONE AND IRON ORE BREAKER

VERY SIMPLE AND VERY DURABLE.

For Mining, Blast Furnaces, Iron and Steel Works, Railroad Ballast, and Macadam.

Patented April, 1873.



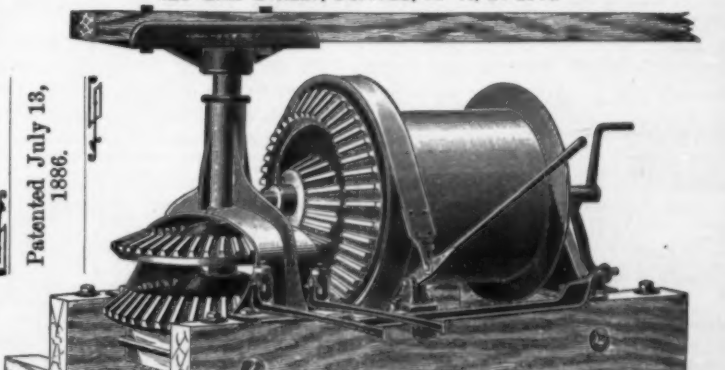
Lever moves horizontally. Can be operated with horse, mule, water or steam power. Owing to Great Gain in Leverage, we do the work of other Crushers with one third the power and one half the weight, and as we crush twice in a revolution, where other Crushers act but once, we do double the quantity. In Fine Crushing for Stamps, Barre, or Finishing Mills, we can do more and Finer Work than has ever been attempted. For prices and testimonials, address

View when Ready for Work.

**TOTTEN & CO.** Rolling Mill and Heavy PITTSBURGH, PA.

## THE CONTRACTORS' PLANT MANFG. CO.

129 ERIE STREET, BUFFALO, N. Y., U. S. A.



Patented July 13, 1886.

This cut illustrates our latest Improved Horse Power Hoisting Machine. This machine has a combination of fast and slow speed. With the fast speed a horse will lift 1,600 to 2,000 lbs. on a single line at a speed of 60 feet per minute, and with a single block 3,500 lbs. 40 feet per minute. With the slow speed a weight of 1 1/2 tons with a single line, and with a single block 3 tons; with two single blocks 5 tons; with double and single blocks 7 tons. The speed single line 30 feet per minute, with single block 15 feet per minute.

In this combination of gears the user has the advantage of two machines embraced in one, with a saving of 25 per cent. in cost and 60 per cent. in weight.

The machine is so simple in its construction that it can be easily understood without explanation. The changing of the speed is done in an instant by simply raising or lowering a lever to the left of the machine without being obliged to stop the horse. With the powerful brake and automatic safety attachment, and with the strength and durability, together with the lightness of this machine, we think we have accomplished a purpose which will be appreciated by our customers, and give us a ready sale of this machine. Price \$250 net.

We Also Manufacture Horse-Power Hoist for Railway Contractors, Bridge Builders and Quarrymen.

Correspondence Solicited. Illustrated Catalogue furnished on application. Mention this paper when you write.



Catalogue sent on Application.



**DOUGLAS MFG. CO.**.....dis 50¢ to 1.00  
**Diston's**.....dis 45¢  
**Cowles Mfg. Co.**.....dis 50¢ to 1.00  
**Stanley Rule & Level Co. a. Var. Hds.**.....dis 60¢  
**Stanley Rule & Level Co. b. Black Hds.**.....dis 50¢  
**Ratchet**.....dis 10¢  
**Clark's Patent**.....dis 25¢  
**Shepardson**.....dis 25¢

**SPOKE TRIMMERS.**  
**Bonney's**.....dis 10¢, dis 50¢  
**Stearns**.....dis 10¢, dis 50¢  
**Ives**.....No. 1, \$15; No. 2, \$12; dis 50¢  
**Three-lane**.....dis 25¢

**SILVER PLATED WARE.**  
**Wm. Rogers Manf. Co.**.....dis 50¢ to 1.00  
**Holmes, Booth & Hayden**.....dis 50¢ to 1.00  
**Wallace's Steel Silver Plated**.....dis 33¢ to 1.00  
**Rogers Bros 1847**.....dis 50¢  
**C. Rogers & Bro.**.....dis 50¢ to 1.00

**SCREWS.**  
**Standard new list, Feb. 15.**

**Flat Head Bright**.....dis 70¢  
**Round Head Bright**.....dis 65¢  
**Flat Head Brass**.....dis 65¢  
**Round Head Brass**.....dis 60¢  
**Flat Head Blue (add 5¢ to net)**.....dis 70¢  
**Brass and Silver Capped**.....dis 40¢  
**Japaned Flat Head**.....dis 65¢  
**Coach, Patent Gimlet Point**.....dis 60¢  
**Coach, Common or Lag**.....dis 70¢  
**Red**.....dis 45¢  
**Machine, Flat Head, Iron**.....dis 55¢  
**Machine, Round Head, Iron**.....dis 50¢  
**Bench, Iron**.....dis 55¢ to 1.00  
**Bench, Wood, Beach**.....dis 25¢ to 50¢  
**Bench, Wood, Hickory**.....dis 25¢ to 50¢  
**Hand, Wood**.....dis 25¢ to 50¢  
**Hand Rail, Sargent's**.....dis 60¢ to 1.00  
**Hand Rail, Humason, Beckley & Co.**.....dis 40¢ to 1.00  
**Hand Rail, Am. Screw Co., list Jan. 1, '81**.....dis 70¢  
**Jack (Wilson's)**.....dis 25¢

**SCREEN FRAMES AND FIXTURES.**  
**Standard Window Screens No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10**.....dis 40¢ to 1.00  
**Door " " " " " " " " " " " "**.....dis 50¢ to 1.00  
**Window Corner Irons, No. 3, 4, 5, 6, 7, 8, 9, 10**.....dis 50¢ to 1.00  
**Door " " " " " " " " " " " "**.....dis 50¢ to 1.00  
**Door Latches, 1/2 dozen, \$3.60**.....dis 50¢ to 1.00  
**Porter's Patent Window and Door Screen Frames**.....dis 50¢ to 1.00

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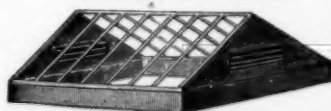
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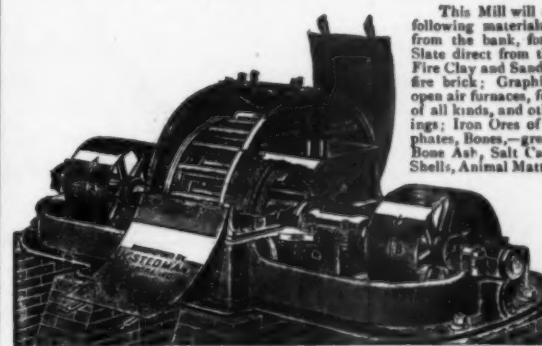
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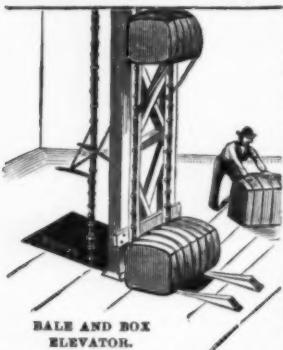
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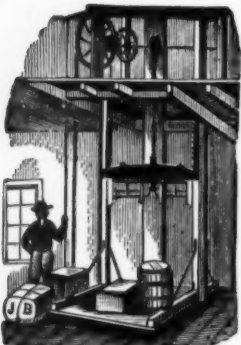
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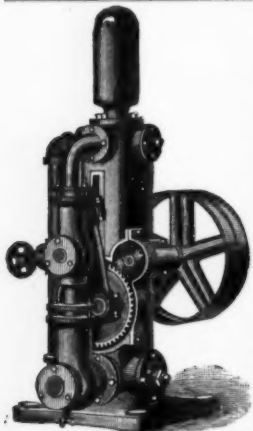
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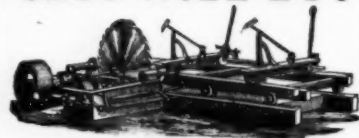
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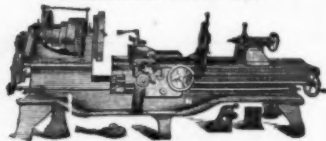
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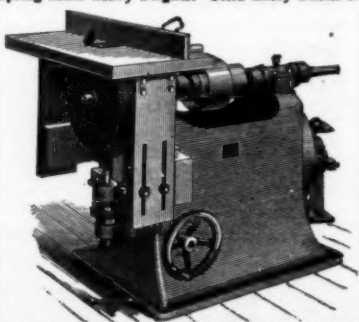
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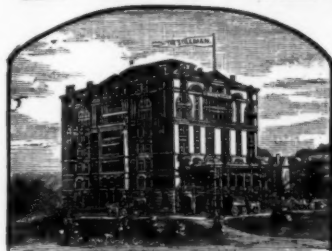
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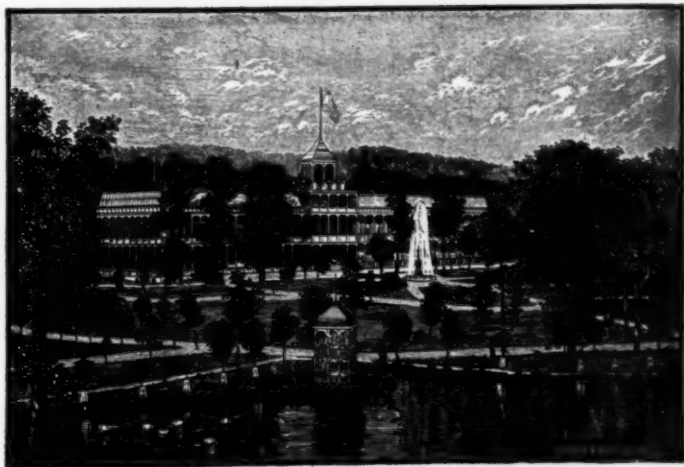
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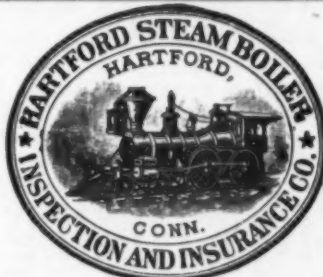
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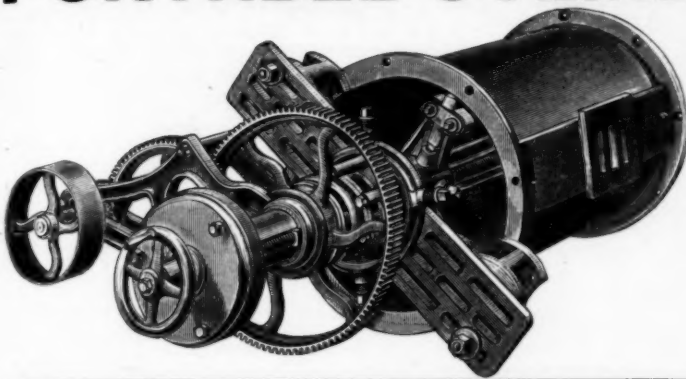
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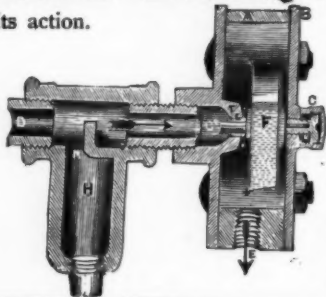
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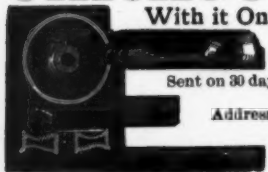
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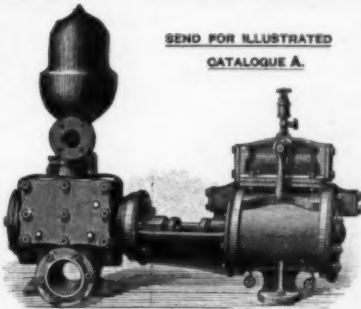
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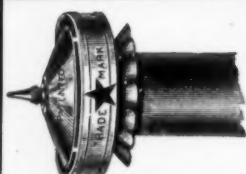
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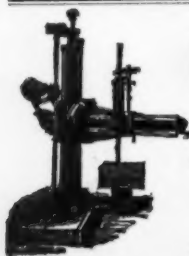


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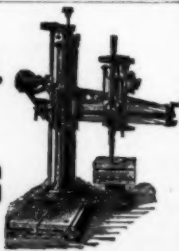
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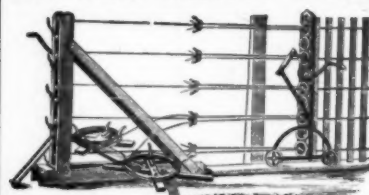
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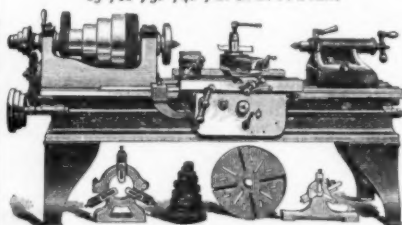
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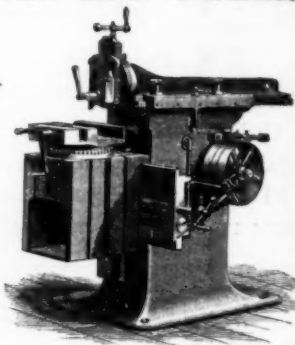
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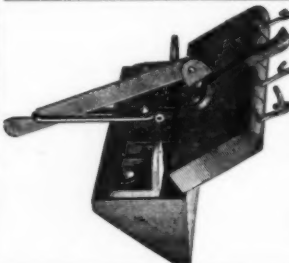
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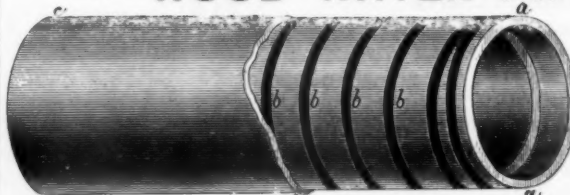
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